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NAVY DEPARTMENT APPROPRIATION BILL, 1923

HEARING BEFORE *U. S. Congress* SUBCOMMITTEE OF HOUSE COMMITTEE ON APPROPRIATIONS

CONSISTING OF

MESSRS. PATRICK H. KELLEY (CHAIRMAN), BURTON L. FRENCH,
CHARLES R. DAVIS, JAMES F. BYRNES,
AND WILLIAM B. OLIVER

IN CHARGE OF THE

NAVY DEPARTMENT APPROPRIATION BILL FOR 1923

SIXTY-SEVENTH CONGRESS

SECOND SESSION



WASHINGTON
GOVERNMENT PRINTING OFFICE
1922

COMMITTEE ON APPROPRIATIONS.

HOUSE OF REPRESENTATIVES.

SIXTY-SEVENTH CONGRESS, SECOND SESSION.

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CHARLES R. DAVIS, <i>Minnesota.</i>	JAMES W. HUSTED, <i>New York.</i>
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NAVY DEPARTMENT APPROPRIATION BILL, 1923.

HEARINGS CONDUCTED BY THE SUBCOMMITTEE, MESSRS. PATRICK H. KELLEY (CHAIRMAN), BURTON L. FRENCH, CHARLES R. DAVIS, JAMES F. BYRNES, AND WILLIAM B. OLIVER, OF THE COMMITTEE ON APPROPRIATIONS, HOUSE OF REPRESENTATIVES, IN CHARGE OF THE NAVY DEPARTMENT APPROPRIATION BILL FOR THE FISCAL YEAR 1923, ON THE DAYS FOLLOWING, NAMELY:

MONDAY, MARCH 6, 1922.

STATEMENTS OF COL. THEODORE ROOSEVELT, ASSISTANT SECRETARY; REAR ADMIRAL DAVID POTTER, CHIEF OF THE BUREAU OF SUPPLIES AND ACCOUNTS; AND MR. CLYDE REED, SPECIAL ASSISTANT TO THE PAYMASTER GENERAL.

Mr. KELLEY. We have with us this morning the Assistant Secretary of the Navy; Admiral Potter, the Chief of the Bureau of Supplies and Accounts, and his assistants. I rather assume that the Secretary of the Navy and the Assistant Secretary of the Navy would prefer to make whatever statement or statements they desire to make later, in the light of the hearings, rather than at the present time, so we will go ahead this morning with Admiral Potter, Chief of the Bureau of Supplies and Accounts. Perhaps I ought to say in behalf of the committee that we are very much pleased to have Col. Roosevelt, the Assistant Secretary, with us, and that we will be delighted to have him or the Secretary here at any time during the hearings that it is convenient for them to be here.

Col. ROOSEVELT. I thank you, Mr. Chairman.

Mr. OLIVER. I believe you voice the sentiment of the full committee.

COST OF OPERATION AND MAINTENANCE OF VESSELS FISCAL YEARS 1916 AND 1921, AND FIRST QUARTER FISCAL YEAR 1922.

Mr. KELLEY. Now, Admiral Potter, a few preliminary questions relative to the method of keeping abreast of the expenses of the Navy before we go into the details. I have here your annual report for 1921. When was that report published?

Admiral POTTER. That report was published in November; the data was finished and assembled in October, but actually printed in November, 1921. It represents the assembled data for the period ending June 30, 1921.

Mr. KELLEY. That report contains tables showing the cost of maintenance and operation for 1921?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Of every ship in the Navy?

Admiral POTTER. Of every ship in the Navy; yes, sir. It includes some accumulated charges from ships which at the end of the year were no longer in commission, but against which charges had come in since the prior report.

Mr. KELLEY. What method, if any, have you of keeping the Secretary of the Navy advised during the year as to the cost of maintenance and operation of any particular ship or station?

Admiral POTTER. We do not send a regular report in unless it is asked for; we make special reports from time to time to the chiefs of bureaus, if they ask for them, as to any particular ship. Ordinarily such tables as I have prepared here are not prepared in this definite form until toward the end of the year, when we do it in the regular process. As I have said, they are gotten out in October or November.

Mr. KELLEY. Then, generally speaking, unless the Secretary of the Navy asks for it specifically, there is no information conveyed to him at regular periods showing the cost of operation and maintenance of any particular ship?

Admiral POTTER. No, sir; unless the Secretary or some bureau asks for it. You understand, we send a monthly report of charges upon all appropriations to the various bureaus concerned, but not as to ships unless asked for.

Mr. KELLEY. Then the Secretary would know at the end of every month just the state of each particular appropriation?

Admiral POTTER. Yes, sir.

Mr. KELLEY. But he would not know how the expenditures for that month were distributed over the Navy?

Admiral POTTER. Precisely; yes, sir.

Mr. KELLEY. I wondered whether you had ever thought about the advisability of so changing your system of bookkeeping as would give the Secretary at more frequent intervals a bird's-eye view of the expenditures for various ships and shore activities during the year while the money was yet being expended.

Admiral POTTER. It has not been done in the past, yet we have just demonstrated, in preparing this table, that, allowing a sufficient lapse of time for the receipt of the necessary returns, it can be done, and I think it might be a good idea if we should furnish the department with such information at such times as it may be deemed necessary. Of course, if we began to prepare such data in time and in a more regular manner it would not be so difficult as it has been in this instance.

Mr. KELLEY. That is if you took care of it as it came in?

Admiral POTTER. Yes, sir; but such information would, of course, be restricted to the data which had been received. The fact that the activities of the Navy are scattered throughout the world makes it impossible to get returns for any given periods at regular intervals, consequently data for a full quarter would be delayed in the preparation until the receipt of all of the reports of expenditures relating to that quarter. The length of time required for the receipt of this data can only be indefinite.

Mr. KELLEY. If you had that in mind from day to day, at the end of each quarter you could prepare a statement which would reflect

pretty accurately the expense of the previous quarter, at least, and you would not be over three months behind on actual expenditures?

Admiral POTTER. Mr. Reed reminds me that it would also be necessary to have an additional clerical force to do that, unless we worked day and night, as we did this time.

Mr. KELLEY. I appreciate your very fine work in getting up these tables for me. As it is now, the Secretary of the Navy does not know, until some three months after the end of the fiscal year, just what any particular vessel has cost the previous year.

Admiral POTTER. That is correct, sir.

Col. ROOSEVELT. Unless he has inquired.

Mr. KELLEY. Unless he has specifically inquired about it?

Admiral POTTER. Yes.

Mr. KELLEY. Now, a word about the relative costs of last year, 1921, as compared with 1916. In operating the fleet what are the chief items of expense?

Admiral POTTER. Of course, we may say at once fuel, which I regard as the chief item.

Mr. KELLEY. It is getting to be.

Admiral POTTER. But not actually in money value. Of course, the largest value in money is pay of the Navy, enlisted men and officers, that is, the compensation of the personnel.

Mr. KELLEY. That would probably be the chief item, would it not?

Admiral POTTER. It is so far as money value goes by far and away the chief item. Then come provisions, then the fuel, then miscellaneous expenses, which indicate charges on such appropriations as construction and repair and engineering for the maintenance of the ships, as well as miscellaneous equipment.

Mr. KELLEY. Take as an illustration the total expense of the maintenance and operation of one of the active ships, the *Wyoming*, or let us go down a little further and get a newer one, the *Pennsylvania*. The total expense for 1921 was \$2,728,605.81.

Admiral POTTER. Yes, sir; in full commission for 12 months.

Mr. KELLEY. Of that amount, \$1,352,640.32 was for pay?

Admiral POTTER. Yes, sir.

Mr. KELLEY. That would be about half of it, would it not?

Admiral POTTER. Yes; that is right, and a trifle under.

Mr. KELLEY. And the other expenses would be divided among equipment, repairs, stores and food?

Admiral POTTER. Yes, sir; in the issues of stores we have here included the food.

INCREASED PAY OF THE NAVY, 1920.

Mr. KELLEY. My recollection is that we increased the pay of the Navy in 1920.

Admiral POTTER. May 18, 1920.

Mr. KELLEY. About what percentage did we increase the officers' pay?

Admiral POTTER. The officers' pay was increased between 20 and 22 per cent, according to the grade.

Mr. KELLEY. Per cent?

Admiral POTTER. Yes, sir; the enlisted men were increased on an average of 30 per cent.

Mr. KELLEY. So if the personnel remained the same in 1916 and in 1921 the increased cost, due to the increased pay, would be something like 22 per cent for the officers and 30 per cent for the men?

Admiral POTTER. Nearer 45 per cent for the men over the 1916 rate.

Mr. REED. I want to make clear that matter. The 30 per cent increase for the enlisted personnel was over the temporary increase authorized by the act of May 22, 1917, and I should say that the increase over the 1916 figures was between 45 and 50 per cent.

Mr. KELLEY. In 1916 we increased the pay of those going in for the first time but did we raise the whole scale?

Mr. REED. The act of May 22, 1917, provided an increase varying from \$6 to \$15 per month all along the line.

Mr. KELLEY. And then this increase made in 1920 was over those figures?

Mr. REED. Yes.

Mr. KELLEY. So if we are to make a fair comparison between 1916 and 1921, what the admiral says about the officers would be correct, but as to the men it should be something like 40 to 50 per cent?

Mr. REED. Yes, sir; around 45 per cent.

Mr. KELLEY. Do you know about what proportion of the expense of the personnel on a ship is pay of the officers?

Admiral POTTER. Not as you phrase it; but I should say that the pay of the officers is about 23 per cent of the whole pay of the Navy.

Mr. KELLEY. And would that hold true as to any particular establishment like a ship?

Admiral POTTER. I would like to verify that.

Mr. REED. I think we can give you definite figures on that and I would rather do it than hazard a guess.

Mr. KELLEY. You may work that out and make the correction.

Mr. REED. Yes, sir.

U. S. S. "Texas," first quarter, 1922.

Officers' pay.....	\$62,919.44
Crew pay.....	202,047.31
Total maintenance.....	500,420.24

Percentage of officers' pay to total pay on battleship.....	23
Percentage of officers' pay to total maintenance of battleship.....	12

Mr. KELLEY. Now, as to the pay of the men and officers on the battleship *Pennsylvania*, as I say, it was \$1,352,640.32 in 1921. I imagine I must have taken an unfortunate ship, because she was not in commission very long in 1916.

Mr. REED. No; only for about a month.

Mr. KELLEY. So let us take the *Nevada*. Would that ship furnish a fair comparison?

Mr. REED. The *Nevada* was only in commission four months, sir; and you would have to go up and take either the *Texas* or *New York*.

Mr. KELLEY. Let us take the *Texas*.

Mr. OLIVER. I would suggest that you take the several types of ships—take destroyers, take battleships, and submarines.

Mr. KELLEY. That is what I am going to do; I am going down the line. Take the *Texas*. The pay of the men was

\$1,064,803.04 in 1921 and in 1916 \$535,538.69. On the basis of the increase and taking an increase of only 40 per cent, how do you explain the increase of practically 100 per cent in the pay of the men?

Admiral POTTER. There is undoubtedly a great increase in the personnel and the complement of the ship; just what that is I do not know. In 1916 I do not know what the complement was.

Mr. KELLEY. It would not be due to the increase in pay?

Admiral POTTER. It would be only partly due to the increase in pay.

Mr. KELLEY. I mean, the whole amount would not be due to that?

Admiral POTTER. No.

Col. ROOSEVELT. It is due to the increase in complement. I can not give you the figures from memory, but I could give them to you approximately. Let us say the *Texas* had a complement at that time of 900; if she had that complement at that time she would have about 1,100 now, or some two hundred and odd more.

Mr. KELLEY. Then, if that is the reason for it we had better get the exact figures from Admiral Coontz.

Col. ROOSEVELT. Yes. As I say, I can not give it to you exactly now, but I can give it to you roughly. Certain entirely new inventions have come into vogue since 1916 which necessitated extra personnel. For example, our fire-control system is entirely new, and all of the men attached to that come under the head of extra personnel; the submarine menaces developed in the last war necessitated a different arrangement of the complement on account of the antisubmarine work; that is another item which has to be added to the situation; our radio work on board ship has increased from practically nil to a very large extent; that is another item that has to be added, and there is a sum total of addition in personnel required in the naval development of the battleship.

Mr. KELLEY. Do you not regard that as a pretty excessive increase, 100 per cent, in the pay of the men and officers on a ship over 1916?

Col. ROOSEVELT. But, you see, you have got to figure, first of all, that you have an increase in pay as indicated by Admiral Potter's statement, and that the proportion of men to officers is lower than the 26 per cent that has been given.

Mr. DAVIS. Would it not be well for the ordinary man, and would he not understand it better, if a record were put in showing the pay of the common seamen and the pay of the other men from that up during the year 1916?

Mr. KELLEY. The pay table in the Navy is a rather complicated thing.

Mr. DAVIS. I mean, put it in dollars and cents instead of percentages

Mr. KELLEY. Have you the complement for 1916, Admiral Potter?

Admiral POTTER. Nine hundred and fifty-seven was her authorized complement in 1916, and in 1921 the authorized complement 1,309.

Col. ROOSEVELT. Authorized; but that does not mean that that complement was on board.

Admiral POTTER. No, sir; it does not.

Mr. KELLEY. The ships' data for 1921 gives the number on board the *Nevada* as 1,188.

Col. ROOSEVELT. I was pretty close, you see; I said 1,100.

Mr. OLIVER. Col. Roosevelt has indicated in a specific way to what he attributes the increase, and I would like to ask that in revising his answer he insert the number assigned to these various services which he thinks now carry an additional number of enlisted men and giving the number now carried.

Col. ROOSEVELT. I will be very glad to do that. As a matter of fact, I have that information at the office, but I did not realize that particular point would be raised this morning. I have in my office just exactly the answer to Mr. Oliver's query. I have the number of personnel on a ship in 1916, the number of personnel on board now, and a tabulation of the various new inventions and the modifications of the naval organization which have caused the increase, with the number of men totaled alongside of each.

Mr. FRENCH. You are now referring to those actually on the ship and not to those that would be authorized?

Col. ROOSEVELT. Actually on the ship; yes. No ship, you know, is manned up to what we call its war strength, and my answer will simply indicate the new inventions; after each invention the number of men which that invention requires to operate it, and the sum total of those men will indicate the differential in strength between 1916 and the present time.

Mr. OLIVER. And you will take as your basis for determining that not the recommendations of the General Board for the authorized complement but the actual number of men carried on the ship?

Col. ROOSEVELT. I will be dealing entirely with what is actually on the ship and not with what is strategically considered advisable on the ship.

Mr. KELLEY. Of course, that will include the actual improvements or changes that were made in the fire control, and things of that kind, since 1916?

Col. ROOSEVELT. Yes.

Mr. KELLEY. Of course, that was during the period of the war, when we were not revising the battleships very much.

Col. ROOSEVELT. I will go into that, but I do not think, Mr. Chairman, that I had better go into that in too much detail. I would be lost and get way beyond myself if I attempted to go into fire-control in detail.

Mr. KELLEY. The number on the *Nevada*, as given by Admiral Washington, in April, 1921, was 1,292.

Mr. FRENCH. Does the year 1916 represent a fair year? Although not in the war, we were approaching a war strength to some extent, 20 per cent or 30 per cent, just for the sake of playing safe in view of war conditions.

Col. ROOSEVELT. I would have said no; I would have said that 1916 did not represent a fair year, but that is a particular point I have not investigated myself. However, I have asked, "Is that a good average?" and I have been told yes.

DETAILED COST OF BATTLESHIP FLEET FISCAL YEARS 1916 AND 1921
AND FIRST QUARTER FISCAL YEAR 1922.

Mr. KELLEY. I wish you would put in the record at this point the details of your report for 1921 which gives the detailed cost of the battleship fleet.

Admiral POTTER. Yes, sir.

Mr. KELLEY. Also right below it a similar report from your report of 1916 giving the cost of the battleship fleet in that year.

Admiral POTTER. Yes, sir.

Mr. KELLEY. So that the committee will have these two tables, one below the other.

Admiral POTTER. Yes, sir.

Mr. KELLEY. I think it will be well to have you give both the first and second lines separately, because some of the second line ships in 1921 were first line ships in 1916.

Admiral POTTER. Very well. Would you care to have added to that the first quarter of 1922?

Mr. KELLEY. I will ask you to put that in just a little bit later.

Admiral POTTER. Very well.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including provisions and rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
	Total.....	\$30,566,165.62	\$1,130,192.55	\$16,280,562.65	\$47,976,920.82	\$8,556,504.69	\$56,533,425.51				
	BATTLESHIPS—FIRST LINE.										
28	Delaware.....	474,005.74	8,567.05	215,521.71	701,094.50	157,783.08	858,879.38	20,000	Apr. 4, 1910	12	12
29	North Dakota.....	180,917.33	2,138.30	86,587.52	269,643.15	69,524.69	339,167.84	20,000	Apr. 11, 1910	12	12
30	Florida.....	505,432.34	8,907.39	274,116.31	788,516.04	91,515.82	880,031.86	21,825	July 15, 1911	12	12
31	Utah.....	474,925.21	8,784.81	233,110.60	716,820.62	82,210.43	799,031.05	21,825	Aug. 31, 1911	12	12
32	Wyoming.....	623,610.66	19,837.45	283,865.13	927,313.24	164,387.76	1,091,701.00	26,000	Sept. 25, 1912	12	12
33	Arkansas.....	586,790.49	8,468.87	301,226.08	896,485.44	148,670.40	1,045,155.84	26,000	Sept. 17, 1912	12	12
34	New York.....	539,749.35	10,320.59	292,614.91	842,684.85	113,676.86	956,361.71	27,000	Apr. 15, 1914	12	12
35	Texas.....	525,528.69	14,186.77	290,388.69	830,114.15	125,330.34	955,444.49	27,000	Mar. 12, 1914	12	12
36	Nevada.....	103,860.84	3,473.64	91,685.26	259,019.74	4,463.23	263,482.97	27,500	Mar. 11, 1916	4	4
37	Oklahoma.....	83,070.81	1,446.37	49,097.95	133,615.13	1,039.22	134,654.35	27,500	May 2, 1916	2	2
38	Pennsylvania.....	21,062.52	70.00	16,518.37	38,250.89	1,554.20	39,805.09	31,400	June 12, 1916	6	6
39	Arizona.....					212.91	212.91	31,400	Building.....		
40	New Mexico.....					204.04	204.04	32,000	do.....		
41	Mississippi.....					204.92	204.92	32,000	do.....		
42	Idaho.....					277.32	277.32	32,000	do.....		
43	Tennessee.....							32,000	do.....		
44	California.....							32,000	do.....		
	Total.....	4,189,503.98	86,291.24	2,127,731.53	6,403,556.75	961,008.12	7,364,564.87				
	Equipage.....						1,841,141.22				
	Total.....						9,205,706.09				

Note:—The figures that appear in italics in the following tables are excess of credits on account of erroneous charges in previous annual reports over charges reported in fiscal year 1921.

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
	Total.....	\$99,299,639.58	\$6,793,161.21	\$72,282,941.43	\$178,375,742.22	\$43,678,678.81	\$44,075,749.91	\$286,130,170.94			
BATTLESHIPS—FIVE T LINE.											
3026	South Carolina.....	469,226.00	41,263.93	251,091.15	761,581.08	51,669.46	51,867.42	865,137.96	16,000	Mar. 1, 1910	12
3027	Michigan.....	459,693.99	13,388.69	240,156.90	713,239.58	39,661.84	94,335.92	847,257.34	16,000	Jan. 4, 1910	12
3028	Delaware.....	1,045,569.45	25,572.18	621,901.58	1,693,043.21	311,402.54	94,302.66	2,494,808.41	20,000	Apr. 4, 1910	12
3029	North Dakota.....	945,937.52	27,277.49	434,551.82	1,507,766.83	140,207.26	131,304.67	2,779,276.76	20,000	Apr. 11, 1911	12
3030	Florida.....	946,568.01	36,820.02	864,301.34	1,837,696.37	213,549.45	367,037.31	2,418,276.13	21,825	Aug. 31, 1911	12
3031	Utah.....	1,083,986.75	31,886.58	521,785.98	1,647,672.31	221,690.78	541,465.05	2,965,365.64	21,825	Aug. 15, 1911	12
3032	Wyoming.....	1,174,852.01	37,535.90	779,651.32	1,991,940.23	221,690.78	193,544.26	2,407,184.27	26,000	Sept. 25, 1912	12
3033	Arkansas.....	1,267,333.88	41,942.87	790,634.77	1,984,844.12	163,319.81	115,828.65	2,313,962.58	26,000	Sept. 12, 1912	12
3034	New York.....	1,237,333.88	71,268.43	805,744.78	2,114,347.03	578,818.30	239,659.03	2,833,124.36	27,000	Apr. 15, 1914	12
3035	Texas.....	1,064,803.04	42,168.43	767,602.43	1,874,573.90	149,779.88	716,000.98	2,740,886.58	27,000	Mar. 11, 1916	12
3036	Nevada.....	1,051,027.77	37,625.83	710,870.91	1,798,524.51	262,144.94	490,227.13	2,571,886.58	27,500	May 2, 1916	12
3037	Oklahoma.....	1,078,030.58	28,321.90	603,801.51	1,708,953.99	327,536.63	313,361.71	2,788,805.31	31,400	June 12, 1916	12
3038	Pennsylvania.....	1,352,640.32	40,180.59	715,246.74	2,108,067.65	307,140.92	313,361.71	2,788,805.31	31,400	Oct. 17, 1916	12
3039	Arizona.....	1,150,196.09	44,391.74	710,708.91	1,905,294.74	294,824.83	326,178.27	2,723,268.39	32,000	May 20, 1918	12
3040	New Mexico.....	1,432,872.99	70,804.50	743,432.63	2,247,110.12	219,947.93	191,809.54	2,816,229.21	32,000	Dec. 16, 1917	12
3041	Mississippi.....	1,073,863.03	36,537.71	778,735.36	1,823,136.60	102,304.34	673,244.68	1,871,144.35	32,300	June 3, 1920	12
3042	Idaho.....	1,073,863.03	34,074.29	675,496.39	1,783,178.52	2,919,181.79	81,979.15	4,802,865	32,300	Aug. 10, 1921	12
3043	Tennessee.....	1,248,604.48	37,845.55	523,533.38	1,809,983.41	5,466.26		5,466.26	32,600		
3044	Colorado.....		356.59		356.59				32,600		
3045	Maryland.....			60	60	44,645.39	7.08	44,652.47	32,600	July 21, 1921	
3046	Washington.....			86,915.59	86,915.59	5,912.08	4.88	42,832.55	32,600		
3047	West Virginia.....					5,275.28		5,275.28	32,600		
3048	South Dakota.....			307.00	307.00	1,935.70		3,559.65			
3049	Indiana.....			1,311.34	1,311.34	32.00	1,116.95	1,343.34			
3050	Montana.....					217.80		10,128.17			
3051	North Carolina.....			1,325.78	1,325.78	1,422.77	9,910.37	4,465.58			
3052	Iowa.....			68.00	68.00	3,540.13	4,042.61	4,865.91			
3053	Massachusetts.....					180.11	38.98				
3054	Total.....	19,135,083.03	689,273.76	11,578,854.31	31,403,241.10	7,443,991.48	6,442,905.61	45,290,138.19			

1922.

[First quarter.]

No.	Name of vessel.	Title C.				Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.	Days in full commission.					Operating with reduced complements in reserve or ordinary.	Days out of commission.
BATTLESHIPS—FIRST LINE.											
3026	South Carolina.....	\$172,024.90	\$5,613.82	\$77,238.05	\$254,876.76	\$2,332.32	\$1,676.39	\$258,935.47			
3027	Michigan.....	130,037.00		27,194.52	157,231.52	1,178.92	1,174.96	158,575.30			
3028	Delaware.....	241,206.33		129,493.90	370,700.22	19,768.30	5,952.68	396,511.20			
3029	North Dakota.....	255,166.98		112,400.07	368,963.62	7,720.74	4,584.20	381,168.58			
3030	Florida.....	206,654.46	1,206.57	134,219.61	370,874.07	85,828.97	7,542.54	464,245.58			
3031	Utah.....	209,793.56	1,443.07	50,845.76	262,043.30	20,424.55	11,270.66	293,738.60			
3032	Wyoming.....	267,793.12	13,710.78	137,827.15	436,297.13	51,125.93	80,035.95	485,207.15			
3033	Arizona.....	257,176.92	4,438.00	150,305.02	394,442.07	171,320.10	45,693.39	545,855.56			
3034	New York.....	254,510.76	5,299.65	124,497.53	410,115.43	165,628.41	38,371.13	612,112.97			
3035	Texas.....	255,317.63	4,940.99	124,497.53	384,766.15	14,838.46	100,795.63	500,420.24			
3036	Nevada.....	239,892.51		58,496.45	298,378.96	8,949.32	7,391.96	314,720.24			
3037	Oklahoma.....	229,071.65		214,562.05	443,633.70	14,074.06	11,890.28	469,598.04			
3038	Pennsylvania.....	298,654.40	7,405.45	201,046.18	507,096.13	54,902.42	17,979.63	579,074.78			
3039	Arizona.....	256,625.78	4,440.16	192,046.83	449,112.77	26,500.40	10,271.13	486,594.30			
3040	New Mexico.....	193,934.83	4,898.63	99,967.39	298,790.85	32,887.83	91,389.48	423,068.16			
3041	Mississippi.....	250,728.38	8,361.81	144,826.04	403,914.23	26,587.40	96,953.11	527,454.71			
3042	Idaho.....	248,445.30	8,198.17	104,061.46	352,724.93	18,914.84	138,392.03	510,031.90			
3043	Tennessee.....	292,590.56	6,138.78	168,340.25	467,089.59	37,896.41	4,394.26	509,399.26			
3044	California.....	191,864.93	2,364.03	87,163.10	281,432.06	435,341.88	50,30.30	716,824.24	52		40
3045	Colorado.....		96.87		96.87			96.87			
3046	Maryland.....	213,370.65	4,303.86	97,997.15	315,573.66	953,131.82	1,265.28	1,269,970.76	72		20
3047	Washington.....		96.86		96.86		\$ 4.79	96.86			
3048	South Dakota.....					\$ 255.00	\$ 4.79	\$ 255.00			
3049	Iowa.....										
	Total.....	4,719,696.64	71,190.90	2,488,183.73	7,279,070.27	1,804,094.02	674,070.40	9,757,234.69			

¹All battleships, first line, in full commission 92 days unless otherwise shown.²Credit.

1916.

No.	Name of vessel.	Title C.			Stores issued (including provisions and medical stores).	Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including committed rations).								Full commission.	Commission in reserve.
BATTLESHIPS—SECOND LINE.												
1	Indiana.....					\$12,285.44	\$12,285.44	10,288	Nov. 20, 1895			
2	Massachusetts.....	\$180,111.97	\$5,090.92	\$84,392.73	\$269,604.62	11,000.36	11,000.36	10,288	June 10, 1896			
3	Oregon.....					24,982.52	24,982.52	11,346	July 15, 1896		7	5
4	Iowa.....					24,982.52	24,982.52	11,346	June 10, 1897			
5	Kearsarge.....	208,948.90	25,907.43	90,346.02	325,202.35	340,208.90	340,208.90	11,520	Feb. 20, 1900		9	
6	Kentucky.....	232,457.53	5,701.25	103,232.40	341,451.27	340,208.90	340,208.90	11,520	Feb. 20, 1900		12	
7	Illinois.....	84,768.60	1,495.96	36,875.66	122,540.59	144,205.77	144,205.77	11,520	May 13, 1900			
8	Alabama.....	165,957.28	1,495.96	80,807.10	247,733.01	231,067.57	231,067.57	11,520	Sept. 16, 1900		6	
9	Wisconsin.....	172,723.27	10,711.62	80,807.10	273,331.99	231,067.57	231,067.57	11,520	Sept. 16, 1900		1	11
10	Maine.....	135,015.80	1,458.57	61,900.88	198,275.25	224,963.46	224,963.46	11,520	Feb. 4, 1901		5	7
11	Missouri.....	205,849.00	5,619.45	111,623.68	323,103.03	366,638.06	366,638.06	12,500	Dec. 29, 1902		5	12
12	Ohio.....	176,178.81	4,432.62	83,289.61	263,952.04	270,700.00	270,700.00	12,500	Dec. 4, 1903		4	8
13	Virginia.....	407,582.55	8,400.77	214,967.72	631,041.05	709,680.66	709,680.66	14,948	Oct. 4, 1904		4	3
14	New Jersey.....	419,150.47	7,402.58	201,029.77	627,582.82	717,773.81	717,773.81	14,948	May 7, 1904		9	
15	Georgia.....	326,380.08	7,232.21	122,631.62	454,243.09	524,898.90	524,898.90	14,948	July 1, 1907		11	7
16	Rhode Island.....	417,055.29	7,470.54	208,932.14	628,458.94	717,773.81	717,773.81	14,948	Sept. 24, 1906		7	5
17	Connecticut.....	341,377.20	4,605.29	122,312.96	468,295.35	524,898.90	524,898.90	14,948	Feb. 12, 1906		11	1
18	Delaware.....	480,534.76	9,045.73	274,432.96	764,013.35	866,638.06	866,638.06	16,000	Sept. 29, 1906		11	1
19	Vermont.....	315,050.39	5,135.12	126,778.44	446,963.95	524,898.90	524,898.90	16,000	June 2, 1906		12	
20	New Hampshire.....	355,741.46	8,092.07	189,318.54	543,152.07	645,780.53	645,780.53	16,000	Apr. 18, 1907		12	
21	Minnesota.....	355,957.21	6,733.68	189,318.54	543,152.07	645,780.53	645,780.53	16,000	Apr. 18, 1907		12	
22	South Carolina.....	427,207.88	9,383.49	172,731.42	609,322.79	674,778.37	674,778.37	16,000	Mar. 9, 1908		12	
23	Michigan.....	441,136.51	9,262.84	188,788.69	639,154.33	674,778.37	674,778.37	16,000	Mar. 1, 1910		12	
	Total.....	6,636,500.79	155,318.94	2,065,015.66	9,856,835.39	1,634,791.57	11,491,626.96					
Equipage.....												
	Total.....						2,872,906.74					
Total.....												

Mr. KELLEY. Mr. Oliver, have you any questions to ask relative to the situation between 1916 and 1921 before we take up the first quarter of this year?

Mr. OLIVER. No; I think you have exhausted that.

Mr. KELLEY. Now, Admiral, you have prepared for the committee—and we are very much indebted to you for it and to the Navy Department—a table showing similar items of expense for the ships of the Navy during the first quarter of 1922.

Col. ROOSEVELT. Might I add that perhaps that is not a fair comparison for the Navy in so far as the second and third quarters go, on account of certain expenses that arise in the first quarter, which I would be delighted to explain to the committee if they so desire.

Mr. KELLEY. When we develop this we will see what we have and then hear your statement. I think it would be well to have you put in at this point a table for the battleships of the first and second line.

Mr. REED. Right with the other two?

Mr. KELLEY. Yes.

Mr. REED. We will do that.

BATTLESHIPS OF THE FIRST LINE—MAINTENANCE AND OPERATION COST, FIRST QUARTER, 1922.

Mr. KELLEY. What do you get as the total battleship maintenance and operation cost for the first quarter?

Admiral POTTER. For the first line?

Mr. KELLEY. Yes.

Admiral POTTER. \$9,757,234.69.

Mr. KELLEY. Assuming that to be a fair quarter of the year—and then we will consider later on whether or not it is a fair quarter—what would that make the battleship fleet cost, the active line, for the year?

Admiral POTTER. For the year it would be about \$38,000,000 or \$39,000,000; four times that.

Mr. KELLEY. In round numbers, \$39,000,000?

Admiral POTTER. Yes, sir.

Mr. KELLEY. What was the total in 1921 for these same ships?

Admiral POTTER. In 1921, \$45,290,138.19.

Mr. KELLEY. So the cost of operation of these ships this year has been reduced by approximately \$6,000,000?

Admiral POTTER. Yes, sir.

Mr. REED. On the basis of the first quarter's figures, but there is a question that would have to be developed as to what ships had been able, for instance, to get in their overhaul periods and repair work. As to the battleship class there was quite an amount for repairs.

Admiral POTTER. You mean as to the justice of the comparison?

Mr. REED. Yes; as to whether a proportionate part of them had gotten in their overhaul period at the navy yards.

Mr. KELLEY. Taking any one ship, of course, it would depend altogether on whether it had gone to a yard to be repaired?

Admiral POTTER. Yes, sir.

Mr. KELLEY. But if we take the list as a whole, would it be fair to period?

Mr. REED. As to the battleship fleet I am not prepared to say, but my recollection is that the three summer months are their active

ruising period; that is, they do some overhauling in the fourth quarter getting ready for the cruise, and there is a relatively smaller number at the yards during July, August, and September than during other months of the year. However, Admiral Coontz would have to develop that.

Col. ROOSEVELT. That is substantially true; they are more apt to overhaul in June, after coming back from their winter cruise.

Mr. KELLEY. You spent \$500,420.24 on the *Texas*?

Admiral POTTER. Yes, sir; \$100,795.63 for alterations and repairs for the first quarter.

Mr. KELLEY. And \$80,035 on the *Wyoming*?

Admiral POTTER. Yes, sir; and on the *Idaho* \$138,392.03 for repairs and alterations.

KELLEY. Undoubtedly each ship has spent her full amount?

Admiral POTTER. Yes, sir.

Mr. FRENCH. Is that for 1922?

Admiral POTTER. Yes, sir; July, August, and September.

Col. ROOSEVELT. There was something to do with the ranges on the *Idaho*; I can not tell you.

Mr. KELLEY. \$96,000 and upward on the *Mississippi*?

Admiral POTTER. Yes, sir; \$96,953 on the *Mississippi*, and on the *New Mexico* \$91,389.

Mr. KELLEY. It has been my understanding always that the Navy Department attempts to apportion this along evenly during the year in order that the navy yard employees shall not have an excess of work at one time and a shortage of work at another. That is the policy that is being pursued?

Admiral POTTER. So far as I understand.

Mr. KELLEY. If it were pursued the repair item would be fairly uniform during the year?

Admiral POTTER. With the exception of the third quarter.

Mr. KELLEY. You would not have the navy yards idle during the third quarter?

Admiral POTTER. No, sir. The fleet takes its biggest cruise in January, February, March, and part of April, and that quarter would likely run smaller than the other three quarters. The first quarter they have the in and out cruises, but the third quarter, January, February, and March, and extending into April, is a cruise of several thousand miles.

Col. ROOSEVELT. The two most uneven quarters are the third and fourth; the fourth would show more and the third less. The other two quarters, the first and second, I believe, will come more closely to the average quarter.

Mr. KELLEY. What was the repair bill on the *Texas* in 1916?

Admiral POTTER. For repairs and alterations, \$125,330.34.

Mr. KELLEY. That was for the entire year?

Admiral POTTER. For 12 months in full commission.

Mr. KELLEY. The chances are that the repairs on the *Texas* for the rest of the year you would not have?

Admiral POTTER. Not here.

Mr. REED. The repairs at that time ought to have been apparently pretty low, because she had only been in commission two years or less. She was put in commission in the late spring of 1914.

Admiral POTTER. Do you wish that compared with 1922 or 1921?

Mr. KELLEY. What was it in 1921?

Admiral POTTER. \$716,000.98.

Mr. KELLEY. And for repairs for this quarter?

Admiral POTTER. \$100,795.

Mr. OLIVER. Will an examination by the past quarters be able to give us a representative average in type of ship, to which you can give answers to questions propounded?

Admiral POTTER. I think the one he has taken is a thorough representative type. It has not been long enough in commission to have had time to deteriorate much on account of age.

Mr. KELLEY. How could you spend \$700,000, under the law, for repairs to a ship in one year?

Admiral POTTER. Authority must have been given by the Navy Department for such expenditures.

Mr. REED. The limit was lifted until the 30th of June, 1920.

Mr. OLIVER. That answer rather suggests the inaccuracy of the information which we have had that it is always cheaper to keep a ship in active commission.

Mr. KELLEY. I was under the impression that there was a legal limit to the repairs.

Mr. REED. The limit was \$300,000. That was suspended during the period of the war.

Mr. KELLEY. There was no limit during that period?

Mr. REED. No, sir—up to June 30, 1920.

Mr. KELLEY. That limit is again in operation?

Mr. REED. Yes, sir.

Mr. KELLEY. The largest amount which you can spend on one of the ships during the coming year is \$300,000, although you spent \$700,000 on this particular ship last year?

Mr. REED. Yes, sir.

COST OF RATIONS 1916-1921.

Mr. KELLEY. What was the average ration in 1916?

Admiral POTTER. The average ration in 1916 was \$0.3714—nearly 38 cents.

Mr. KELLEY. Let us call it 38 cents in round numbers.

Admiral POTTER. Yes, sir.

Mr. KELLEY. What was the average in 1921?

Admiral POTTER. The average in 1921 was \$0.6846—say 68½ cents.

Mr. KELLEY. And for the first three months of 1922?

Admiral POTTER. \$0.6423.

Mr. KELLEY. What is the cost right now—the last purchases?

Admiral POTTER. \$0.5656—almost 57 cents.

Mr. KELLEY. That is the average on all the ships?

Admiral POTTER. That is the average on all the ships. This time we took the actual number of rations, not only by types of ships, but the actual number of rations, and worked them out.

Mr. KELLEY. The average is increased in proportion as the ships are scattered and have no purchasing officers aboard?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Do you know what the cost of the ration is on any particular type of ship?

Admiral POTTER. Yes, sir; the torpedo-boat destroyers, those without supply officers, are running—at present, you mean?

Mr. KELLEY. Yes, sir.

Admiral POTTER. Those without supply officers, roughly speaking, are the destroyers and similar vessels, and they are running \$0.6977—practically 70 cents.

Mr. KELLEY. Those are the destroyers?

Admiral POTTER. Yes, sir; and similar vessels almost 70 cents. Vessels on which there are supply officers for the same period are running \$0.4940, practically 49½ cents. Of course, it is possible to live more cheaply upon large vessels than small ones; where you have 1,400 men you can live at a cheaper rate than where you have only 115 men.

Mr. KELLEY. The item of "stores issued" includes more than food?

Mr. REED. That actually includes all supplies—fuel, lubricating oil, miscellaneous cleaning gear, and engine-room supplies—as well as provisions and medical stores.

Mr. KELLEY. Please put in the record at this point a percentage table, taking the *Texas* as a model, showing the various percentages that make up the 100 per cent expense of operating that ship for pay, food, fuel, repairs, and other items, miscellaneous.

Admiral POTTER. Yes, sir.

Mr. KELLEY. So that we can differentiate those and see how the new prices will compare for the similar expenditures during the coming year.

U. S. S. "Texas," maintenance and operation, fiscal year 1921.

	Amount.	Per cent of total.
Pay.....	\$1,064,803.04	39
Provisions.....	250,468.83	9
Fuel.....	245,941.06	9
Other stores issued.....	271,192.54	10
Miscellaneous expenses.....	42,168.43	2
Equipage.....	149,779.88	5
Repairs and alterations to ship, including equipage.....	716,000.98	26
Total.....	2,740,354.76	100

Mr. REED. Those percentage items vary with every ship.

Mr. KELLEY. But you can tell pretty well.

What officer should we interrogate relative to ships put in commission in 1916 of any particular class; perhaps, Admiral Washington?

Admiral POTTER. Admiral Coontz.

ARMORED CRUISERS.

Mr. KELLEY. Taking up the armored cruisers, I see here the armored cruiser *Frederick*—

Admiral POTTER (interposing). That was the armored cruiser *Maryland*.

Mr. KELLEY. She is in commission?

Admiral POTTER. Yes, sir; but she was not in 1916.

Mr. REED. The *Pittsburgh* is the only one that carries through.

Mr. KELLEY. These old ships have been resurrected since 1916.

Col. ROOSEVELT. Most of them are out of commission now. The one in commission is the *Rochester*.

Mr. KELLEY. The armored cruisers, practically all of them you say were out of commission in 1916?

Admiral POTTER. The *Montana* and *North Carolina* were in full commission, but they are not now. It is very difficult to get a comparison. They were the only two in full commission in 1916, and neither of them is now.

Mr. KELLEY. Suppose we take one of the ships that was in commission in 1916 and compare that with one that was in commission in 1921, which would be fairly comparable?

Admiral POTTER. Take the *Montana* or *North Carolina* in 1916.

Mr. KELLEY. Very well.

Mr. REED. The *Pittsburgh* is the only one in commission during the two years.

Admiral POTTER. She was not in commission in 1916. You will have to compare one ship with a similar ship. Take the *North Carolina*.

Mr. KELLEY. What did she cost for operation and maintenance in 1916?

Admiral POTTER. The total maintenance and operation was \$433,026.66.

Mr. KELLEY. What ship was in commission which would be fairly comparable with the *North Carolina*, the *Frederick*?

Admiral POTTER. The *Frederick* is the same type. She was in commission 92 days. Take the *Frederick* for 1921, the total maintenance and operation was \$1,213,957.60.

Mr. KELLEY. Is that about three times the 1916 ship?

Mr. REED. Yes, sir; about three times.

Admiral POTTER. That was a different vessel. We can give you the *Frederick's* figures for the first quarter.

Mr. KELLEY. The *Federick* now was the *Maryland* taken over?

Admiral POTTER. Yes, sir. She was only in commission 19 days in 1916, commission and reserve, not in active commission. That is a type of vessel that is very difficult to get any comparison with because it has been changed since.

Mr. KELLEY. The *Pittsburgh*—how long was she in commission in 1916?

Admiral POTTER. Five months.

Mr. KELLEY. A little less than half a year?

Admiral POTTER. Yes, sir; she was only in reserve.

Mr. KELLEY. Not in full commission?

Admiral POTTER. No, sir.

Mr. KELLEY. What was the cost of the *Pittsburgh* last year—1921?

Admiral POTTER. \$1,777,931.02.

Mr. KELLEY. What has been the cost of the *Pittsburgh* for the first three months of this year?

Admiral POTTER. \$229,454.53.

Mr. KELLEY. If that holds for the year, it will be about \$1,000,000?

Admiral POTTER. Yes, sir.

Mr. OLIVER. Will the table show the complement of that ship?

Admiral POTTER. Yes, sir; we can get it for 1921.

Col. ROOSEVELT. The *Pittsburgh* is out of commission now. She is at the Philadelphia Navy Yard and out of commission. She is the *Huron*. We put her out of commission in November or December.

Mr. KELLEY. Have you the *South Dakota* for 1916?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Was that ship in full commission all the time in 1916?

Mr. REED. She was in commission and reserve the full year.

Mr. KELLEY. Is she in full commission now?

Col. ROOSEVELT. She is in full commission.

Mr. KELLEY. She was in reserve commission in 1916?

Admiral POTTER. Yes, sir.

Mr. KELLEY. What was the expense that year?

Admiral POTTER. \$321,639.43.

Mr. KELLEY. What was the cost to operate her last year, 1921?

Admiral POTTER. \$947,231.57.

Mr. KELLEY. Have you the date when that ship was built?

Admiral POTTER. No, sir. I have the first commission, January 27, 1908.

Mr. KELLEY. Will you insert in the record at this point the table for 1916 and 1921 and for the first quarter for armored cruisers?

Admiral POTTER. Yes, sir.

1916.

No.	Name of vessel.	Title C.				Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Total operating expenses.					Full commission.	Commission in reserve.
ARMORED CRUISERS.											
126	Colorado.....	\$269,476.10	\$5,470.08	\$134,312.44	\$399,258.62	\$121,942.45	\$521,201.07	13,680	Jan. 19, 1905	3	2
127	Maryland.....	300,128.29	6,553.24	221,766.44	528,480.97	59,715.01	588,195.98	13,680	Apr. 18, 1905		19
133	Memphis.....	300,793.39	8,618.33	280,385.00	589,763.72	118,678.29	708,442.01	14,500	July 17, 1906		
131	Montana.....	312,531.34	2,913.73	142,734.95	458,218.02	71,593.93	529,811.95	14,500	July 27, 1908	12	
132	North Carolina.....	242,894.17	6,566.97	124,053.20	373,454.34	59,542.32	433,026.66	14,500	May 7, 1908	12	
128	Pittsburgh.....	125,053.95	5,741.30	83,079.74	207,854.99	19,474.54	227,329.53	13,680	Mar. 9, 1905		5
125	San Diego.....	147,152.70	8,141.30	272,016.86	727,310.86	36,043.08	763,353.94	13,680	Aug. 1, 1907	3	9
129	South Dakota.....	138,812.66	6,738.26	147,748.76	281,301.68	40,327.75	321,629.43	13,680	Jan. 27, 1908		12
134	Washington.....	379,982.02	6,832.34	114,016.02	500,827.38	124,856.89	625,684.27	14,500	Aug. 7, 1906	9	3
130	West Virginia.....	131,538.32	2,173.35	71,840.03	205,551.70	205,062.54	411,554.24	13,680	Feb. 23, 1905		12
Total.....		2,621,339.94	58,797.90	1,591,953.44	4,272,093.28	858,186.80	5,130,280.08				
Equipage.....							1,262,570.02				
Grand total.....							6,412,850.10				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
ARMORED CRUISERS.											
3408	Frederick.....	\$494,733.55	\$32,989.31	\$359,055.33	\$896,778.19	\$89,246.15	\$237,933.26	\$1,213,957.60	13,680	Apr. 18, 1905	12
3405	Huntington.....	27,948.71	1,298.49	24,734.00	53,981.20	27,965.10	45,175.14	127,121.44	13,680	Feb. 23, 1905	2
3412	Charlottesville (ex-North Carolina)....	156,325.53	7,154.15	79,527.13	243,006.81	6,106.30	16,013.26	265,126.37	14,500	May 7, 1908	7
3409	Huron (ex-South Dakota).....	650,597.68	72,065.93	141,873.98	864,537.59	58,864.98	23,829.00	947,231.57	13,680	Jan. 27, 1908	.....
3410	Memphis.....	.....	.....	5.95	5.95	264.20	.....	270.15	14,500	July 17, 1906	.....
3413	Missoula (ex-Montana).....	118,907.50	5,522.70	61,441.03	185,871.23	13,352.97	60,652.27	259,876.47	14,500	July 21, 1906	7
3404	Pittsburgh.....	1,072,336.76	50,554.43	561,984.62	1,684,875.81	63,577.42	29,477.79	1,777,931.02	13,680	May 9, 1905	.....
3407	Pueblo.....	50,597.54	173.57	15,037.85	65,808.96	571,952.73	126,883.96	764,645.65	13,680	Jan. 19, 1905	12
3406	San Diego.....	.....	130.00	1,320.00	1,450.00	.....	277.30	1,727.30	13,680	Aug. 1, 1907	2
3411	Seattle.....	179,755.60	9,601.49	86,287.75	275,644.84	618.06	79,188.15	355,451.05	14,500	Aug. 17, 1906	7
Total.....		2,751,202.87	179,490.07	1,331,297.64	4,261,990.58	831,947.91	619,430.13	5,713,338.62	.....	.....	.....

1923.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
ARMORED CRUISERS.										
3408	Frederick.....	\$128,870.50	\$442.63	\$82,646.02	\$181,938.15	\$15,940.30	\$1,628.71	\$199,528.16		
3405	Huntington.....						2,200.32	2,200.32		
3412	Charlotte (ex North Carolina).....						5,325.43	5,325.43		
3409	Huron (ex South Dakota).....	211,048.33	46.18	91,305.03	302,399.54	8,642.15	4,962.35	316,004.04		
3413	Miscoula (ex Montana).....						297.42	720.99		
3404	Pittsburgh.....	173,394.32	1,208.48	53,836.73	228,439.53	423.57	± 10.38	229,454.53		
3407	Pueblo.....			140.14	140.14	1,025.38	5,449.66	5,994.80		
3411	Seattle.....					75.00	4,654.66	4,654.66		
	Total.....	\$13,313.15	1,697.29	197,927.92	712,938.36	26,106.40	24,508.17	763,552.93		

¹ All cruisers in full commission for 92 days except as shown otherwise.

: Credit.

Mr. OLIVER. I think wherever the chairman has asked with reference to any particular vessel that you should gave a comparative statement showing the complement carried by the vessel.

Col. ROOSEVELT. I should think that would be very helpful.

Mr. REED. You want the authorized or the actual complement in 1916 and 1921 and the first three months?

Mr. OLIVER. The actual complement.

Mr. KELLEY. That is not to include the marines.

Mr. REED. The commissioned personnel and the enlisted personnel? (The complements will be shown in the tables to be submitted by Admiral Coontz.)

Mr. KELLEY. Yes, sir; exclusive of the marines. In the list of cruisers of the first class, the *Brooklyn*, I imagine was in commission in 1916 for 12 months?

Admiral POTTER. Yes, sir; that is correct, but only eight months in 1921.

Mr. KELLEY. What did the *Brooklyn* expend in 1916?

Admiral POTTER. The total maintenance and repair amounted to \$632,651.08.

Mr. KELLEY. And for the eight months in 1921?

Admiral POTTER. \$790,762.12.

Col. ROOSEVELT. At the rate of \$1,080,000 for the year.

Mr. KELLEY. Based on the year?

Col. ROOSEVELT. Yes, sir.

Mr. KELLEY. Take the *Charleston*—what was that in 1916?

Admiral POTTER. That was in reserve during the whole year 1916, 12 months in reserve.

Mr. KELLEY. Was that a situation where they had a 50 per cent complement?

Mr. REED. Even less than that.

Mr. KELLEY. How much did you spend on her then?

Admiral POTTER. \$194,846.98.

Mr. KELLEY. How much did you spend on her in 1921?

Admiral POTTER. \$1,112,910.64 in full commission.

Mr. KELLEY. Was she in full commission for the full time?

Admiral POTTER. Yes, sir.

Mr. KELLEY. How about the first three months of 1922?

Admiral POTTER. As to the *Brooklyn*, we sold the *Brooklyn*. The *Charleston*, \$247,186.43.

Mr. KELLEY. If that rate holds good for the year it will cost about as much as last year?

Admiral POTTER. \$968,000.

Mr. KELLEY. A little less, quite a little bit?

Admiral POTTER. Yes, sir.

Mr. KELLEY. We can figure those out as we go along, and the complement?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Take the *Saratoga*?

Admiral POTTER. The *Saratoga* was in full commission for eight months in 1916 and four months in reserve. There was spent on her \$396,821.97.

Mr. KELLEY. How much for 1921?

Admiral POTTER. She was in full commission, \$1,154,872.29.

Mr. KELLEY. When was this ship put in commission first?

Admiral POTTER. August 1, 1893. She was the old *New York*.

Mr. KELLEY. What will you spend on her during the first three months?

Admiral POTTER. \$209,501.43. That would amount during the year to \$836,000, if at the same rate.

Mr. KELLEY. What was the amount of the repairs on her in 1921?

Admiral POTTER. The repairs alone in 1921 were \$83,193.21.

Mr. KELLEY. How much have you spent for repairs on her this year during the first three months?

Admiral POTTER. \$7,597.01.

Mr. KELLEY. You are not spending very much on repairs?

Admiral POTTER. No, sir.

CRUISERS—FIRST CLASS.

Mr. KELLEY. You will put in the list of cruisers of the first class for the three periods that we are considering?

Admiral POTTER. Yes, sir.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
	CRUISERS—FIRST CLASS.										
121	Brooklyn.....	357,640.91	15,397.53	183,978.56	556,926.00	75,725.06	632,651.06	9,215	Dec. 1, 1896	12	.....
122	Charleston.....	117,815.79	3,105.24	59,407.44	180,328.47	14,518.51	194,846.98	9,700	Oct. 17, 1905	.....	12
123	Milwaukee.....	173,328.52	4,376.13	116,868.02	294,572.67	7,623.57	302,196.24	9,700	May 11, 1906	.....	12
120	Saratoga.....	274,585.27	9,650.78	92,692.23	376,928.28	19,863.69	396,821.97	8,150	Aug. 1, 1893	8	.....
124	St. Louis.....	127,157.35	5,942.32	74,646.87	206,846.54	53,704.04	260,550.58	9,700	Aug. 18, 1906	.....	12
	Total.....	1,050,536.84	37,472.00	527,593.12	1,615,601.96	176,464.89	1,792,066.85	.....	.....	.....	.....
	Equipage.....	.....	.....	.....	.....	.....	448,016.71	.....	.....	.....	.....
	Total.....	.....	.....	.....	.....	.....	2,240,083.56	.....	.....	.....	.....

1891.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
	CRUISERS—FIRST CLASS.										
3553	Brooklyn.....	551,010.09	24,049.28	105,166.43	680,225.80	13,149.04	693,374.84	790,762.12	9,215	Dec. 1, 1896	8
3572	Charleston.....	506,480.58	29,065.94	243,356.73	776,873.25	52,638.75	829,512.00	1,112,910.64	9,700	Oct. 17, 1905	12
3571	Milwaukee.....	.....	102.96	.....	819,102.96	.....	819,102.96	2,632.86	.....	.....	.....
3552	Rochester (ex-Saratoga).....	561,840.06	21,436.37	236,055.64	819,334.07	252,245.01	83,193.21	1,154,872.29	8,150	Aug. 1, 1893	12
3570	St. Louis.....	533,834.61	36,365.42	222,062.87	792,262.90	47,373.64	839,636.54	866,777.06	9,700	Aug. 18, 1906	10
	Total.....	2,150,165.34	110,991.97	806,631.67	3,067,788.96	372,428.42	517,727.55	3,957,944.96	.....	.....	.....

1923.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
CRUISERS—FIRST CLASS.										
3553	Brooklyn.....	\$163,663.58	\$8,560.25	\$64,108.54	\$236,332.37	\$8,643.62	\$722.22	\$722.22		92
3572	Charleston.....						2,210.44	247,106.43		
3571	Milwaukee.....						37.10	37.10		92
3552	Rochester (ex-Saratoga).....	142,267.41	7,671.07	46,058.69	195,997.17	5,907.25	7,597.01	209,501.43		
3570	St. Louis.....	130,035.86	3,403.72	36,385.16	169,824.74	9,467.53	5,102.10	184,394.37		
	Total.....	435,966.85	19,635.04	146,552.39	602,154.28	24,018.40	15,668.87	641,641.55		

¹ All cruisers—first class—in commission 92 days unless otherwise shown.

CRUISERS—SECOND CLASS.

Mr. KELLEY. Cruisers of the second class; what about the *Olympia* in 1916?

Admiral POTTER. The *Olympia* was not in commission at all; she was entirely out.

Mr. KELLEY. How much did we spend on her?

Admiral POTTER. \$80,056.07.

Mr. KELLEY. How much in 1921?

Admiral POTTER. In 1921, 12 months' commission, \$1,179,800.66.

Mr. KELLEY. When was she first put into commission?

Admiral POTTER. She was first put into commission February 5, 1895.

Mr. KELLEY. How much was expended on her during the first three months of this year?

Admiral POTTER. \$163,338.28.

Mr. KELLEY. How much did her repairs amount to during this quarter?

Admiral POTTER. This quarter's repairs amounted to \$4,382.39.

Mr. KELLEY. What did they amount to last year?

Admiral POTTER. \$21,244.07.

Mr. DAVIS. What is the general nature of those repairs?

Admiral POTTER. All sorts of odds and ends. The steelwork, for instance, may get chipped and possibly cracked, and have to be repaired. We may have to take a piece of angle iron out and renew it. On the other hand, there may be just some woodwork to be repaired about the ship, or a plate may get bent in contact with another ship, and that would have to be straightened out. It consists of all sorts of general mechanical and carpenter work, including machinery repairs, also.

Mr. KELLEY. What about the *Columbia* in 1916?

Admiral POTTER. In 1916 the *Columbia* was in full commission and her total expenses were \$382,433.69.

Mr. KELLEY. How much were they for 1921?

Admiral POTTER. In 1921 she was for 11 months in full commission, and her expenses were \$950,571.52.

Mr. KELLEY. When was she first put into commission?

Admiral POTTER. On August 23, 1894.

Mr. KELLEY. You have disposed of her now, have you not?

Admiral POTTER. Yes, sir.

Mr. KELLEY. There is a *Columbia*, but not this one?

Admiral POTTER. There was one.

Mr. KELLEY. You may insert your table covering cruisers of the second class at this point.

Admiral POTTER. I will do so.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public voucher (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
CRUISERS—SECOND CLASS.											
116	Chicago.....	\$46,193.47	\$247.72	\$38,490.06	\$85,010.25	\$8,382.32	\$93,392.57	4,500	Apr. 17, 1899	.....	12
118	Columbia.....	230,225.20	3,441.91	92,163.71	325,860.82	56,572.87	382,433.69	7,350	Apr. 23, 1894	.....	.....
119	Minneapolis.....	.....	.....	.....	.....	4,074.78	4,074.78	7,350	Dec. 13, 1894	.....	.....
117	Olympia.....	.....	45.00	120.38	165.38	79,891.32	80,056.70	5,865	Feb. 5, 1895	.....	.....
	Total.....	276,418.67	3,834.63	130,783.15	411,036.45	149,821.29	560,857.74	.....	.....	.....	.....
	Equipage.....	.....	.....	.....	.....	140,214.44	140,214.44	.....	.....	.....	.....
	Grand total.....	.....	.....	.....	.....	.....	701,072.18	.....	.....	.....	.....

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
CRUISERS—SECOND CLASS.											
2451	Chicago.....	\$430,608.43	\$20,238.71	\$56,100.20	\$507,127.43	\$29,797.49	\$88,583.22	\$625,508.14	4,500	Aug. 17, 1899	12
2462	Columbia.....	577,204.07	35,520.93	192,851.04	805,666.04	44,064.75	100,840.73	980,571.52	7,350	Aug. 23, 1894	11
2463	Minneapolis.....	257,539.42	11,766.76	116,063.59	385,369.77	3,566.76	13,096.49	402,033.02	7,350	Dec. 13, 1894	8
2466	Olympia.....	623,709.83	38,609.69	469,563.54	1,131,883.05	26,673.54	21,244.07	1,179,800.66	5,865	Feb. 5, 1895	12
2464	Omaha.....					1,777.00		1,777.00	7,100		
2466	Milwaukee.....										
	Total.....	1,889,241.74	106,226.09	\$84,573.46	2,830,046.29	106,878.54	223,764.51	3,159,680.34			

NAVY DEPARTMENT APPROPRIATION BILL, 1922

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.		
		Accrued pay.	Miscellaneous expense, including communications.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
	CRUISERS—SECOND CLASS.										
3551	Chicago	\$104,755.12		\$255.60	\$105,010.72	\$5,039.52	\$15,098.09	\$125,148.33			
3552	Columbia				19.48	452.61	3,317.34	3,789.43	92		92
3553	Minneapolis	\$19.48					4,611.37	4,611.37			92
3554	Olympia						4,382.39	163,538.28			
3556	Olympia	114,651.36		39,900.07	154,551.43	4,404.46	4,535.66	4,882.19	92		92
3564	Ornaba					4,446.53					
	Total	219,406.48	19.48	40,155.67	259,581.63	14,343.12	27,944.85	301,869.60			

CRUISERS OF THIRD CLASS.

Mr. KELLEY. We will now take up cruisers of the third class.

Admiral POTTER. The Birmingham was in full commission for 12 months in 1916, and her expenses were \$404,608.82. In 1921 she was also in full commission, and her expenses were \$869,502.95. For the first quarter of 1922 her expenses have been \$162,230.72.

Mr. KELLEY. How much have her repairs amounted to?

Admiral POTTER. Her repairs for this quarter, in the fiscal year 1922, have been \$32,897.19. Going back to 1921, her repairs were \$93,505.35, and in 1916 her repairs amounted to \$60,147.27. She was put into commission on April 11, 1908.

Mr. KELLEY. Do you know how many men these cruisers of the third class call for?

Admiral POTTER. I should say about 400 men.

Mr. KELLEY. You will have full complements inserted, all the way down?

Admiral POTTER. Yes, sir.

Mr. KELLEY. You may supply a statement showing the actual number on a definite date, say on July 1, 1921, and the actual number at the present time.

Admiral POTTER. Yes, sir.

Mr. KELLEY. Now, we will take the *Galveston*.

Admiral POTTER. The *Galveston* was in full commission in 1916, and the total amount spent on her was \$236,232.10. In 1921 she was also in full commission, and the total expense was \$785,777.19.

Mr. KELLEY. That is a very heavy increase.

Admiral POTTER. For the first quarter of 1922 her expense was \$186,111.19.

Mr. KELLEY. How much did the repairs amount to?

Admiral POTTER. The repairs for the first three months of 1922 amounted to \$71,231.90, for 1921 they amounted to \$80,358.94, and for 1916 they amounted to \$12,890.71. She was first commissioned on February 15, 1905.

Mr. KELLEY. At this point you can put in the tables covering the third-class cruisers.

Admiral POTTER. I will do so.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public voucher (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
CRUISERS—THIRD CLASS.											
111	Albatross	\$84,680.45	\$1,635.48	\$49,838.19	\$136,163.12	\$24,409.76	\$160,572.88	3,430	May 29, 1900	2	10
112	Birmingham	242,351.27	2,169.11	99,941.17	344,461.55	60,147.27	404,608.82	3,750	Apr. 11, 1908	12	
102	Boston	8,746.06	984.02	1,194.09	10,924.17	138.00	11,062.17	3,000	May 2, 1887		
105	Charlton	148,152.48	3,764.58	81,334.61	223,251.67	37,854.94	271,206.61	3,200	Oct. 11, 1904	12	
114	Chester	192,624.15	6,463.96	203,847.88	402,435.99	8,081.11	411,917.10	3,750	Apr. 25, 1908	10	
103	Cincinnati	154,691.27	7,880.46	69,983.89	232,485.62	5,931.50	237,517.12	3,183	June 16, 1894	12	2
106	Cleveland	155,785.15	4,417.60	75,015.78	235,218.53	56,045.15	291,263.68	3,200	Nov. 2, 1903	12	
107	Denver	168,243.07	3,404.70	72,897.92	244,545.69	28,227.01	272,772.70	3,200	May 17, 1904	12	
108	Des Moines	160,893.72	4,443.93	91,359.30	256,696.95	601.41	257,268.36	3,200	Mar. 5, 1904	12	
109	Galveston	125,232.61	3,539.83	94,548.95	223,341.39	12,890.71	236,232.10	3,200	Feb. 15, 1905	12	
100	Marblehead	47,347.26	170.03	17,917.06	65,234.35	26,320.28	91,554.63	2,072	Apr. 2, 1894		12
101	Montgomery	138,790.14	138.70	20,991.88	21,130.58	30,426.46	30,426.46	2,072	June 21, 1894		12
112	New Orleans	107,532.83	4,731.88	80,744.64	224,266.60	53,705.10	277,971.76	3,430	Mar. 18, 1898	12	
104	Raleigh	92,727.71	3,928.95	91,530.16	203,011.94	47,110.72	250,122.66	3,183	Apr. 17, 1894	12	
115	Salem	34,127.66	1,769.88	41,429.82	135,927.41	65,597.01	201,524.42	3,750	Aug. 1, 1908	2	10
110	Tacoma		100.00	19,176.20	56,403.86	59,579.23	115,983.09	3,200	Jan. 30, 1904		
	Total	1,801,954.83	49,513.11	1,114,531.54	3,025,990.48	496,038.08	3,522,037.56				
	Equipage.						880,409.39				
	Grand total.						4,402,546.95				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and commuted rations.	Stores issued, including provisions and medical stores.							
MONITORS.											
3601	Amphitrite.....			\$808.51	\$808.51		\$383.01	\$459.52	3,900	Apr. 23, 1905	.....
3610	Cheyenne.....			92,447.82	94,617.80	\$191,920.93	13,131.94	299,870.77	3,225	Dec. 4, 1902	..... 9
3612	Monadnock.....		\$2,170.06	869.26	869.26		16,078.98	15,208.73	3,980	Feb. 20, 1896	.....
3614	Monterey.....	\$91,484.81	2,988.84	74,991.99	169,463.64	12,498.41	5,319.51	187,272.56	4,064	Feb. 13, 1893	..... 12
3617	Clark.....		23.12	17.85	40.97		5,483.25	5,543.22	3,225	Oct. 28, 1902	.....
3619	Tallahassee.....	27,151.50	645.00	30,151.56	57,948.06	187,723.73	22,028.00	267,684.85	3,225	June 18, 1903	..... 10
3621	Tonolowah.....			32,839.19	32,839.19	626.94	3,458.39	37,024.52	3,225	Mar. 5, 1903	.....
7925	Puritan.....					14.23		14.23			.....
	Total.....	118,636.31	5,825.04	229,835.67	354,297.02	392,775.24	65,870.14	812,942.40			.....

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.				Days in full commission.	Operating with reduced complements in reserve or ordinary.
	MONITORS.								
3610	Cheyenne.....	\$21,993.61	\$624.08	\$14,492.53	\$184.63	\$213.31	\$37,515.21	.....	.....
3602	Monadnock.....					913.69	913.69	.....	.....
3603	Monterey.....	12,606.10	193.11	8,547.07	131.65	79.17	21,557.10	.....	.....
3607	Ozark.....					752.66	752.66	58	.....
3609	Tallahassee.....	9,752.35	60.10	2,009.23	2,428.04	824.78	15,075.10	.....	.....
3608	Tonopah.....		1.00			344.93	345.93	.....	.....
	Total.....	44,352.06	878.29	25,053.83	2,744.92	3,128.54	76,150.69	.....	.....

¹ All monitors in commission 92 days unless otherwise shown.

DESTROYERS.

Mr. KELLEY. How many destroyers are in your table for 1921?

Mr. REED. We will have to count them up. Our table or recapitulation shows 267 in commission at various times during the year.

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Mr. KELLEY. Yes.

Mr. REED. There were 267. That is the number that was in commission during some portion of the year.

Mr. DAVIS. Of all grades?

Admiral POTTER. Yes, sir; including coast defense destroyers.

Mr. KELLEY. That is not the total number, is it?

Admiral POTTER. No, sir.

Mr. KELLEY. You can put in a statement showing the exact number of destroyers on which expenditures were made in 1921.

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NOTE.—Total, 328. In commission part or whole year, 267. Coast torpedo vessels and torpedo boats, 31.

Mr. KELLEY. What was the total cost of maintenance and operation of the destroyers in 1921?

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Mr. REED. Fifty-seven.

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Admiral POTTER. \$4,231,092.07.

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Mr. KELLEY. The main thing is to know the approximate amount of it, so that our minds may not be confused by indefinite figures.

Suppose you read the statement giving the total for the item you mentioned.

Mr. REED. The report does not show it. The total amount of the equipage issued to ships in 1916 was \$14,007,523.17, increasing the 6 table 25 per cent when compared with 1921 and 1922.

Mr. KELLEY. To all ships?

Mr. REED. Yes, sir; we will have to make a distribution of that by classes as best we can, so as to get it upon a comparable basis.

Mr. FRENCH. Would the percentage figure, using the total expenditure for equipage for the year 1921, indicate the proportionate figures for equipage in 1916?

Mr. REED. That might give a fairly accurate basis, but I would like to talk it over with the people who are handling the details.

NOTE.—Twenty-five per cent has been added to all 1916 tables by groups and an analysis of the normal equipage for principal ships is here included.

Average cost of equipage for the following classes of vessels during the first quarter of fiscal year 1922.

Battleship, first line	\$23, 104. 18
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Armored cruisers	8, 535. 94
Cruisers, first class	8, 006. 13
Cruisers, second class	4, 721. 99
Cruisers, third class	8, 082. 54
Destroyers	4, 527. 94

Mr. KELLEY. Equipage covers replacements in the way of furniture, bedding, hammocks, boats, etc.?

Admiral POTTER. Yes, sir; anything that makes the ship habitable and usable, as distinguished from consumable supplies.

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Mr. KELLEY. But it would not vary very greatly in the number of articles.

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Mr. REED. In connection with the particular group we are discussing now, or destroyers, in 1921 the amount of equipage issued to them was \$23,000,000. That was because of the tremendous number of new destroyers coming along and being put into commission, and in the case of many of those destroyers that amount includes the initial outfit. In other words, the figures for 1921 are undoubtedly excessive for equipage for the group of destroyers in commission.

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Mr. KELLEY. You may give that as accurately as you can. Of course, I do not want to put the department to any unusual or needless effort.

Col. ROOSEVELT. What you want is a reasonable approximation of the amount?

Mr. KELLEY. Yes; so that we may have an intelligent understanding of it. You may insert your table at this point.

Admiral POTTER. We will do so.

1916.

No.	Name of vessel.	Accrued pay.	Title C.		Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
			Public vouchers (including committed rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
DESTROYERS.											
206	Allen.	\$49,278.04	\$1,045.62	\$30,979.65	\$81,203.51	\$20,308.54	\$101,512.05	1,071	Building.		
221	Ammen.	57,501.00	236.10	54,337.12	112,074.22	13,906.03	125,980.25	742	May 22, 1911.	12	
246	Aylwin.	38,977.97	435.64	55,524.24	114,937.89	16,383.65	131,321.54	1,036	Jan. 17, 1914.	12	
247	Balch.	35,649.90	290.45	22,751.66	58,741.10	21,871.69	80,612.79	742	Mar. 26, 1914.	12	
222	Beale.	54,308.16	390.09	47,119.39	101,814.64	17,269.42	119,084.06	1,036	Aug. 30, 1912.	12	
248	Bennett.	48,227.45	462.96	36,147.44	84,837.85	8,217.59	92,865.44	742	Jan. 20, 1914.	12	
223	Burrows.								Feb. 21, 1911.	12	
249	Caldwell.								Building.		
273	Cassin.	58,474.10	159.07	\$5,991.68	114,624.85	15,839.96	130,464.81	1,020	Aug. 9, 1913.	12	
272	Courier.								Building.		
272	Courier.	23,725.03	183.28	25,522.51	47,440.82	23.05	47,463.87	1,000	Jan. 21, 1916.	5	
255	Craven.								Building.		
270	Cummings.	56,274.58	154.90	\$1,959.49	108,388.97	21,778.51	130,167.48	1,020	Sept. 19, 1913.	12	
250	Cushing.	49,614.90	312.07	\$3,284.73	103,211.70	5,031.51	108,243.21	1,050	Aug. 21, 1915.	10	
255	Davis.					8.42	8.42	1,072	Building.		
224	Downes.	28,612.58	326.20	12,265.52	41,234.30	1,912.74	43,147.04	742	Feb. 11, 1915.	3	
242	Drayton.	50,881.15	335.46	35,461.71	86,553.32	28,067.80	115,231.12	1,014	Oct. 29, 1910.	12	
246	Duncan.	22,780.62	522.50	20,739.94	53,043.10	11,565.56	64,608.66	1,060	Aug. 30, 1913.	5	
252	Ericksen.	52,750.75	321.37	59,098.96	112,108.96	3,178.37	115,287.33	742	Aug. 14, 1915.	10	
226	Fanning.	52,283.15	200.50	90,225.60	92,719.25	22,118.62	114,837.77	1,014	June 21, 1912.	12	
216	Flusser.	35,900.50	447.44	23,769.28	60,147.22	5,566.90	65,714.12	700	Oct. 28, 1909.	12	
271	Gwin.								Building.		
226	Henley.	40,251.39	208.15	45,579.04	84,038.62	12,369.81	96,408.43	742	Dec. 6, 1912.	12	
227	Jacob Jones.	21,847.47	6.98	5,507.06	55,124.46	600.20	55,814.66	1,150	Feb. 10, 1916.	5	
257	Jarvis.	49,110.43	1,065.52	38,008.96	89,664.91	20,739.30	110,404.21	742	Oct. 22, 1912.	12	
228	Jenkins.	52,318.58	434.85	24,263.03	87,016.46	19,220.51	106,236.97	742	June 15, 1912.	12	
229	Jewett.	47,663.72	190.36	29,509.25	77,372.33	23,798.96	101,169.29	742	May 25, 1912.	12	
228	Lamson.	35,198.54	209.85	34,670.66	70,067.05	17,915.50	87,982.55	700	Feb. 10, 1910.	12	
231	McCall.	45,137.63	274.07	28,628.66	74,340.36	37,602.92	111,943.28	742	Jan. 23, 1911.	12	
243	McDougal.	57,343.25	669.44	57,907.22	115,919.91	15,668.28	131,588.19	1,020	June 16, 1914.	12	
230	Mayrant.			1,469.80	1,469.80		14,593.46	742	July 12, 1911.	12	
232	Monaghan.	35,565.23	426.81	27,474.14	63,408.14	29,904.73	93,310.91	742	June 21, 1911.	12	
252	Nicholson.	57,439.13	631.47	115,356.62	8,688.59	124,045.41	1,050	Apr. 30, 1915.	12		
240	O'Brien.	58,320.76	94.92	\$3,029.02	121,448.70	1,801.37	123,250.07	1,050	May 22, 1915.	12	
249	Parker.	56,703.08	383.21	59,412.47	116,498.76	19,404.42	135,903.18	1,036	Dec. 30, 1913.	12	

233	Patterson.....	371.10	41,648.24	94,272.59	24,077.85	118,550.44	742	Oct. 11, 1911	12
234	Building.....	120.62	26,120.03	72,401.19	21,186.52	93,587.71	742	Sept. 20, 1910	12
235	Perkins.....	34,357.42	30,305.38	64,751.60	21,346.19	86,097.79	742	Nov. 18, 1910	12
236	Porter.....	10,047.11	8,784.36	18,830.07	16,550.49	35,380.55	1,000	Apr. 17, 1916	2
237	Preston.....	32,685.64	21,588.07	54,408.49	16,553.36	71,061.85	700	Dec. 24, 1909	12
238	Rad.....	37,443.37	30,122.20	67,848.20	11,007.49	78,855.69	700	Dec. 3, 1909	12
239	Roe.....	150.55	23,580.29	57,892.76	18,719.82	76,612.58	742	Sept. 17, 1910	12
240	Rowan.....	103.90		103.90	6.35	110.25	1,111	Building.....	12
241	Shaw.....						1,110	do.....	12
242	Smith.....	35,415.68	23,266.26	58,711.94	25,034.63	83,746.57	700	Nov. 26, 1909	12
243	Sterett.....	30,965.01	40,960.17	71,925.99	16,418.45	88,411.44	742	Dec. 15, 1910	12
244	Stockton.....							Building.....	12
245	Terry.....	34,300.47	24,136.71	58,641.95	14,860.72	73,528.67	742	Oct. 18, 1910	12
246	Tippe.....	32,336.18	23,013.28	55,548.74	27,114.63	82,663.37	742	Mar. 23, 1911	7
247	Tucker.....	11,362.10	16,181.95	27,777.39	110.16	27,887.55	1,060	Apr. 11, 1916	3
248	Wadsworth.....	57,118.66	44,137.31	101,910.90	1,839.49	103,750.39	1,060	July 23, 1915	11
249	Wainwright.....	7,036.01	5,676.78	12,751.39	11,254.64	24,006.03	1,150	May 12, 1916	2
250	Walke.....	35,966.79	27,451.26	63,531.75	19,345.98	82,877.73	742	July 22, 1911	12
251	Warrington.....	53,363.11	36,268.37	90,008.88	34,365.60	124,394.48	742	Mar. 20, 1911	11
252	Wilkes.....						1,110	Building.....	1
253	Winslow.....	52,213.04	62,315.44	114,621.85	2,298.38	116,920.23	1,060	Aug. 7, 1915	11
Total		1,889,751.46	1,627,292.60	3,530,972.66	700,119.41	4,231,092.07			
Equipment						1,067,773.02			
Total						5,298,865.09			

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237	Ammen	\$40,278.01	\$1,045.62	\$30,879.85	\$81,203.51	\$20,308.54	\$101,512.05	1,071	May 23, 1911	12	
238	Aylwin	\$7,501.00	236.10	54,337.12	112,074.22	13,908.03	125,980.25	1,036	Jan. 17, 1914	12	
239	Bald	\$8,977.97	435.68	55,524.24	114,937.89	16,383.65	131,321.54	1,036	Mar. 26, 1914	12	
240	Beale	\$5,669.99	200.45	22,751.66	58,741.10	21,871.69	80,612.79	742	Aug. 30, 1912	12	
241	Bennett	\$4,308.16	390.09	47,119.39	101,814.64	17,206.42	119,084.06	1,036	Jan. 20, 1914	12	
242	Burrows	\$8,227.45	462.96	36,147.44	84,857.85	8,217.59	92,985.44	742	Feb. 21, 1911	12	
243	Caldwell								Building	12	
244	Cassin	\$8,474.10	159.07	55,991.68	114,624.85	13,838.96	130,464.81	1,020	Aug. 9, 1913	12	
245	Conner								Building	5	
246	Conyngham	\$3,725.03	183.28	23,532.51	47,440.82	23.05	47,463.87	1,000	Jan. 21, 1916	12	
247	Craven								Building	12	
248	Cummings	\$6,274.38	154.90	51,950.49	108,388.97	21,778.51	130,167.48	1,020	Sept. 19, 1913	12	
249	Cushing	\$9,811.90	312.07	53,284.73	103,211.70	5,031.51	108,246.21	1,050	Aug. 21, 1915	10	
250	Davis								Building	12	
251	Dawson	\$8,612.38	326.20	12,285.52	41,234.30	1,912.74	43,147.04	1,072	Feb. 11, 1915	3	
252	Drayton	\$0,891.15	220.46	35,461.71	86,563.32	28,067.80	115,231.12	742	Oct. 29, 1910	12	
253	Duncan	\$2,790.62	522.50	50,739.98	53,043.10	11,565.36	64,608.06	1,014	Aug. 30, 1913	5	
254	Ericksen	\$2,750.73	321.37	59,036.86	112,108.98	3,178.37	115,287.35	1,000	Aug. 14, 1915	10	
255	Fanning	\$2,293.15	200.50	40,225.60	92,719.25	22,118.52	114,837.77	1,742	June 21, 1912	12	
256	Flusser	\$5,830.50	417.44	23,769.28	60,147.22	5,506.90	65,711.12	700	Oct. 28, 1909	12	
257	Gwin								Building	12	
258	Henley	\$0,251.39	208.15	43,579.08	84,038.62	12,360.81	96,408.43	742	Dec. 6, 1912	12	
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263	Lamson	\$5,186.54	209.85	31,670.66	70,067.05	17,915.90	87,982.97	700	Feb. 10, 1910	12	
264	McCall	\$5,137.63	274.07	26,928.66	74,340.36	37,002.92	111,943.28	742	Jan. 23, 1911	12	
265	McDougal	\$7,343.25	669.44	57,907.22	115,919.91	15,608.28	131,588.19	1,020	Jan. 16, 1914	12	
266	Mayhew								Building	12	
267	Monaghan	\$5,505.23	426.81	27,474.14	63,408.18	13,123.60	76,531.78	742	July 12, 1911	12	
268	Nicholson	\$7,430.13	651.47	57,426.12	115,356.62	29,904.73	145,261.35	1,030	Apr. 30, 1915	12	
269	O'Brien	\$8,220.76	94.92	83,028.02	121,448.70	8,688.59	130,137.29	1,050	May 30, 1915	12	
270	Parker	\$6,703.06	393.21	59,412.47	116,498.76	19,404.42	135,903.18	1,036	Dec. 30, 1913	12	

233	Patterson.....	52,253.25	371.10	41,648.24	94,272.59	24,077.85	118,350.44	742	Oct. 11, 1911	12
234	Building.....	46,151.62	120.82	26,129.05	72,401.19	21,186.52	93,587.71	742	Sept. 20, 1910	12
235	Perkins.....	34,353.42	92.80	30,305.38	64,731.60	21,340.19	86,077.79	742	Nov. 18, 1910	12
236	Porter.....	10,047.11	18.60	8,784.36	18,850.07	44.64	18,894.71	1,000	Apr. 17, 1916	2
237	Porter.....	32,685.64	223.88	21,588.97	54,498.49	16,553.36	71,051.85	700	Dec. 3, 1909	12
238	Redd.....	37,445.37	290.63	30,122.20	67,848.20	11,007.49	78,855.69	742	Sept. 17, 1910	12
239	Rowe.....	34,142.92	150.55	23,599.29	57,892.76	18,719.82	76,612.58	1,111	Building.....	12
240	Rowan.....	103.90			103.90	6.35	110.25	1,111	do.....	12
241	Sampson.....							1,110	do.....	12
242	Shaw.....	35,414.68	30.00	23,266.26	58,711.94	25,034.63	83,746.57	700	Nov. 29, 1909	12
243	Smith.....	30,965.01	77.81	40,960.17	71,922.99	16,418.45	88,411.44	742	Dec. 15, 1910	12
244	Sterett.....								Building.....	12
245	Stockton.....							742	Oct. 18, 1910	12
246	Terry.....	34,303.47	198.77	24,136.71	58,441.95	14,898.72	73,328.67	742	Mar. 23, 1911	7
247	Tripp.....	32,363.16	198.26	23,013.28	55,376.44	27,114.63	82,491.07	1,060	Apr. 11, 1916	3
248	Tucker.....	11,392.10	33.34	16,191.95	27,777.39	110.16	27,887.55	1,060	July 23, 1915	11
249	Wadsworth.....	57,118.66	634.86	44,197.31	101,910.90	1,839.49	103,750.39	1,150	May 12, 1916	2
250	Wainwright.....	7,068.01	18.60	5,676.78	12,781.39	11,264.64	24,046.03	742	July 22, 1911	12
251	Walke.....	35,963.79	83.70	27,401.26	63,331.75	19,345.98	82,677.73	1,110	Mar. 20, 1911	1
252	Warrington.....	53,963.11	356.40	36,266.37	90,008.88	34,365.60	124,374.48	1,060	Building.....	11
253	Winslow.....	52,213.04	93.37	62,315.44	114,621.85	2,298.38	116,920.23		Aug. 7, 1915	
Total		1,889,751.46	13,928.60	1,627,292.60	3,530,972.66	700,119.41	4,231,092.07			
Equipment							1,067,773.02			
Total							5,298,865.09			

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrual pay.	Miscellaneous expense, including contingencies and unanticipated ratios.	Stores issued, including provisions, victuals and medical stores.							
DESTROYERS.											
4132	Aaron, Ward	\$102,717.54	\$1,161.35	\$115,872.45	\$219,751.34	\$43,684.65	\$48,056.83	\$311,492.22	1,54	Apr. 21, 1919	12
4194	Abbot	69,817.32	2,231.62	36,750.93	108,800.07	29,017.08	55,559.54	193,376.69	1,213	July 19, 1919	12
4211	Alden	106,166.32	2,991.21	90,926.92	200,074.45	33,744.36	39,944.36	240,968.18	1,215	Nov. 24, 1919	12
4096	Allen	42,124.21	1,173.07	55,644.17	98,942.03	5,090.46	23,178.65	127,212.16	1,071	Jan. 24, 1917	12
4055	Ammen		612.00	320.08	932.08		21,705.02	22,637.10	742	May 23, 1911	
4172	Anthony	28,954.41	470.98	33,008.15	65,342.54	13,129.23	3,240.54	73,712.31	1,191	June 10, 1919	12
4284	Antick	33,827.31	1,318.85	48,763.31	83,939.67	14,437.24	76,825.19	175,262.10	1,215	July 26, 1919	12
4291	Asbourne, Charles	67,262.40	1,270.29	79,463.81	147,925.31	107,107.88	4,105.39	250,136.78	1,215	Mar. 25, 1920	12
4047	Aylwin	33,394.68	100.00	8,060.79	41,945.47	10,478.34	17,087.34	60,046.90	1,039	Jan. 17, 1914	7
4128	Babbutt	73,198.60	718.34	61,706.14	135,633.28	10,374.39	61,760.16	213,787.83	1,211	do	12
4126	Badger	74,199.96	1,390.03	48,327.93	123,803.92	20,478.34	70,556.47	223,928.83	1,211	May 28, 1919	11
4198	Badger, G. E.	48,921.42	1,367.28	85,971.52	131,490.52	22,263.86	14,403.26	148,584.21	1,213	Aug. 27, 1919	12
4185	Bagley	66,925.84	2,026.82	48,708.91	117,751.52	11,794.53	95,065.50	273,962.54	1,215	June 27, 1919	12
4269	Bailey	64,208.97	3,955.98	96,847.54	167,012.49	82,706.18	98,145.77	246,006.22	1,039	Mar. 25, 1914	12
4050	Balch	27,016.39	296.84	37,574.04	65,757.27	9,983.39	14,706.55	128,738.33	1,215	June 30, 1919	12
4256	Baincroft	47,310.31	933.71	164,816.30	201,115.41	51,969.97	16,750.95	329,798.33	1,215	June 5, 1919	12
4267	Ballard	95,163.54	1,135.57	67,803.62	194,043.20	7,155.99	1,860.00	203,156.19	1,215	Dec. 27, 1919	12
4213	Barker	124,249.59	2,387.99	101,398.82	303,598.83	18,072.98	39,038.37	390,710.18	1,154	Mar. 14, 1919	12
4149	Barney	140,813.29	1,386.72	16,418.60	16,418.60	31.90	5,038.91	22,900.41	742	Aug. 30, 1912	
4040	Beale	59,737.26	2,407.25	159,187.55	221,322.16	47,087.92	24,172.88	262,592.96	1,215	Apr. 28, 1919	12
4251	Belknap	60,313.71	806.36	78,664.36	139,184.63	59,184.34	2,354.40	200,723.37	1,185	July 31, 1918	12
4005	Bel	35,679.22	1,018.38	48,711.15	85,439.05	86,890.04	108,288.21	340,617.30	1,039	Jan. 20, 1914	12
4153	Bernadou	161,303.23	4,524.12	83,833.34	300,780.69	28,272.33	58,082.10	387,115.12	1,165	May 19, 1919	12
4151	Biddle	101,762.47	1,261.93	100,760.91	200,745.31	6,522.02	92,890.55	309,188.88	1,154	Apr. 22, 1919	12
4293	Billingly	73,590.08	1,968.53	74,830.28	150,778.89	34,507.00	5,157.11	189,043.00	1,215	Mar. 1, 1920	4
4126	Blackely	152,875.83	1,355.27	134,568.95	278,700.05	41,874.01	52,967.08	373,631.14	1,194	May 8, 1919	12
4136	Boggs	76,376.64	1,788.30	59,917.84	138,282.78	2,074.78	13,265.63	153,563.19	1,247	Sept. 23, 1918	12
4215	Borie	113,414.07	70,060.01	70,060.01	190,535.96	43,516.62	23,834.82	425,372.43	1,215	July 26, 1920	12
4197	Branch	102,472.35	2,660.79	84,937.25	190,070.19	211,467.42	23,834.82	425,372.43	1,215	July 26, 1920	11
4283	Breck	78,653.95	1,294.15	78,653.95	151,967.06	32,087.80	6,531.88	160,906.74	1,165	Dec. 27, 1919	12
4243	Breckinridge	87,872.60	1,316.77	78,174.95	167,394.38	19,433.80	61,225.55	247,621.73	1,213	Oct. 23, 1918	12
4222	Brooks	75,349.24	1,217.42	85,134.64	161,701.30	35,111.80	4,101.92	200,915.02	1,215	June 18, 1920	11
4252	Brooks	128,016.06	25,890.12	96,465.63	248,371.81	130,553.04	7,390.07	406,314.92	1,215	Oct. 31, 1919	12
4246	Broome	104,308.00	2,557.33	118,705.21	222,227.54	6,830.14	17,208.64	246,276.32	1,215	Dec. 28, 1920	12
4245	Barry	18,267.10	2,240.04	38,775.20	57,212.34	247,068.56	7,024.73	306,305.06	1,215	Oct. 31, 1919	12
4359	Bruce	52,167.58	2,478.65	104,503.24	140,503.24	216,427.20	1,800.00	358,881.34	1,215	Sept. 2, 1920	9
4131	Buchanan	95,192.29	1,308.72	106,380.01	202,891.62	20,094.37	63,764.82	286,730.81	1,154	Jan. 20, 1919	12

4222	Bulmer.....	73,515.94	2,547.58	125,798.32	201,940.74	342,292.73	2,445.98	546,558.35	1,215	Aug. 16, 1920	11
4299	Burnes, John Francis.....	53,862.96	2,020.10	97,843.15	141,752.21	16,351.91	38.57	158,142.74	1,215	May 7, 1919	12
4171	Burns.....	173,525.50	5,387.24	30,980.59	226,853.33	1,786.15	31,430.17	270,140.57	1,792	Aug. 21, 1911	12
4029	Burrows.....			42,740.99	105,646.78	58,872.36	17,343.92	181,672.07	1,185	Feb. 19, 1917	12
4166	Bush.....	61,835.07	1,073.73	50,091.43	94,046.49	16,033.32	17,830.46	212,487.28	1,215	Dec. 8, 1913	12
4089	Caldwell.....	98,535.43	2,394.97	66,346.11	167,276.51	35,033.37	10,018.50	232,687.89	1,020	Aug. 6, 1913	12
4265	Cass.....	44,363.14	670.06	41,507.09	106,513.29	5,441.83	9,152.64	152,65	1,185	Sept. 5, 1919	3
4043	Casson.....	29,791.22	1,059.65	161,010.62	307,963.59	32,302.21	26,302.63	385,898.96	1,215	Jan. 25, 1918	12
4104	Champlin.....	140,554.45	5,968.52	38,372.25	41,267.46	213,01.15	52,438.88	254,850.92	1,215	Jan. 25, 1918	12
4216	Chandler.....	2,865.21		61,431.69	127,278.20	13,344.22	3,472.96	185,068.37	1,185	Dec. 22, 1920	12
4323	Chauncey.....	65,397.32	449.19	63,317.21	93,210.00	269,218.84	21,765.20	497,178.37	1,215	Oct. 13, 1919	12
4296	Chew.....	87,367.38	1,955.39	57,479.45	176,194.08	20,863.45	63,362.76	279,133.62	1,215	June 13, 1918	12
4241	Child.....	77,124.05	1,594.28	49,832.33	99,113.87	193,364.65	37,100.18	229,186.01	1,185	Jan. 13, 1918	12
4186	Clemons.....	48,402.98		21,803.82	174,236.66	21,558.57	80,018.03	240,720.07	1,235	Jan. 21, 1920	12
4326	Coglian.....	90,038.16	856.71	83,341.79	94,785.88	9,369.82	91,712.60	195,070.70	1,215	Apr. 28, 1921	12
4334	Co'e.....	49,191.43	721.55	44,872.90	89,037.65	53,510.96	4,435.71	216,251.90	1,215	May 25, 1921	12
4085	Colhoun.....	39,324.76	780.51	55,168.37	116,514.56	47,311.07	11,947.82	174,873.45	1,185	Apr. 18, 1919	12
4072	Conner.....	55,147.49	955.43	48,608.94	104,711.80	35,301.75	54,943.66	148,866.40	1,185	Jan. 24, 1919	12
4058	Convingham.....			77,142.57	153,959.22	192,481.20	1,039.58	358,881.20	1,124	Sept. 4, 1915	12
4291	Converse.....	75,439.41	1,377.24	21,771.12	21,771.12	12,017.03	64,712.66	92,106.30	1,050	Aug. 21, 1915	12
4167	Cowell.....	57,601.91	1,053.64	58,144.14	116,799.09	25,308.90	19,411.93	161,520.52	1,185	Apr. 18, 1919	12
4109	Crane.....	78,950.97	4,066.03	87,825.57	270,942.57	42,900.09	2,839.46	316,582.12	1,185	Oct. 19, 1918	12
4070	Craven.....	60,306.47	1,039.72	55,168.37	116,514.56	47,311.07	11,947.82	174,873.45	1,185	Jan. 24, 1919	12
4164	Crosby.....	64,050.99	1,670.87	66,971.65	132,093.51	11,458.50	4,837.79	148,866.40	1,185	Aug. 6, 1915	12
4134	Crowninshield.....	126,814.01	2,305.95	139,315.83	238,435.79	35,301.75	54,943.66	358,881.20	1,124	Sept. 4, 1915	12
4044	Cummings.....	53,612.91	750.40	51,647.52	106,010.83	10,061.18	35,086.30	151,787.31	1,235	Jan. 21, 1920	12
4055	Cushing.....	11,578.99	505.28	13,474.84	25,559.11	704.36	64,712.66	92,106.30	1,050	Aug. 21, 1915	12
4187	Dahlgren.....	125,851.35	684.75	141,427.22	267,895.32	12,017.03	47,706.56	327,046.51	1,215	Jan. 6, 1920	6
4290	Dallas.....	104,270.98	1,774.19	85,504.36	191,555.41	51,045.57	20,218.19	253,418.17	1,215	Feb. 19, 1920	8
4199	Dallas.....	30,270.40	960.96	70,307.07	101,558.43	183,352.78	22,078.29	307,966.50	1,215	Oct. 3, 1916	12
4085	Davis.....	35,928.59	172.72	41,351.40	77,250.71	31,627.97	4,353.05	153,231.73	1,071	Sept. 30, 1919	12
4129	De Long.....	58,182.16	1,858.34	44,353.12	104,393.02	9,663.24	70,078.12	154,154.98	1,211	Nov. 30, 1918	12
4261	De Puy.....	3,948.69	3,948.69	69,288.84	108,268.04	12,397.14	100,746.98	221,412.76	1,215	Sept. 9, 1918	12
4116	DeWitt.....	96,254.28	1,127.93	54,030.25	151,418.46	11,639.08	87,568.05	282.16			
4200	Destroyer No. 200.....			4.30	4.30	227.86		365.06			
4202	Destroyer No. 201.....			13.10	13.10	369.95		362.16			
4204	Destroyer No. 204.....			13.10	13.10	362.06		362.16			
4205	Destroyer No. 205.....			33,462.24	49,391.32	249,416.13	895.96	299,703.41	1,215	May 28, 1919	7
4246	Bainbridge.....	6,373.44	21.52	37,832.63	44,327.69	213,878.53	536.09	258,702.81	1,215	Feb. 9, 1921	3
4322	Mervine.....			41,338.47	1,396.31	53,119.24	490.41	54,965.96	1,215	Mar. 27, 1921	4
4333	Sumner.....	7,062.97	40.80	41,338.47	46,442.24	133,078.57	9,451.42	190,975.23	1,215	Feb. 13, 1921	4
4337	Zane.....			606.11	606.11	54,254.29	6,433.02	61,275.42	1,215		
4341	Decatur.....	54,921.82	1,397.86	87,407.58	143,727.26	210,042.32	6,433.02	356,258.15	1,215	Sept. 2, 1920	9
4347	Fruitt.....	158,031.84	1,951.06	132,095.83	292,078.73	32,237.22	32,976.90	357,262.85	1,211	Sept. 16, 1918	12
4157	Dickerson.....	74,070.23	1,976.69	65,055.12	140,102.04	17,873.93	90,307.35	248,283.32	1,185	Sept. 16, 1918	12
4015	Downes.....	33,312.57	1,557.93	52,570.46	87,470.96	11,645.60	147,033.94	268,152.50	1,072	Feb. 17, 1919	12
4280	Doyen.....	96,400.95	1,383.11	92,210.14	189,994.20	74,865.82	3,336.07	268,226.09	1,215	Dec. 17, 1919	12
4023	Drayton.....			140.46	140.46		2,138.44	2,298.90	742	Oct. 29, 1910	

1921 - Continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Miscellaneous expense, including communications and medical stores.	Stores issued, including provisions and medical stores.								
DESTROYERS - continued.											
4046	Duncan.	\$39,818.22	\$33,008.90	\$72,855.02	\$31,674.94	\$200,691.85	\$205,221.81	1,014	Aug. 30, 1913	12	
4152	Dyer.	94,201.45	104,919.90	201,180.28	5,467.40	47,370.06	254,028.72	1,154	Apr. 30, 1919	12	
4044	Dyer.	18,558.15	99,528.08	120,086.23	11,460.08	17,370.06	149,253.75	1,191	July 26, 1920	12	
4210	Edgell.	37,558.57	140,619.45	190,177.85	50,622.03	3,042.15	332,284.63	1,215	Apr. 26, 1920	12	
4243	Edwards, J. D.	18,948.87	102,400.08	190,735.85	191,622.53	3,042.73	356,787.12	1,215	Apr. 26, 1919	12	
4243	Edwards.	39,746.17	155,069.98	85,322.82	100,962.79	108,565.40	201,691.01	1,215	Apr. 26, 1919	12	
4146	Ellis.	37,047.66	145,396.07	255,125.55	20,850.41	50,094.40	335,323.38	1,154	Jan. 7, 1919	12	
4078	Ellis.	53,854.04	153,137.59	108,492.53	15,457.79	48,785.04	186,381.08	1,154	Jan. 7, 1919	12	
4078	Elliott.	50,672.04	108,192.45	108,492.53	58,328.83	48,586.92	245,381.08	1,090	Aug. 11, 1918	12	
4078	Elliott.	14,419.63	113,828.13	219,702.65	28,328.83	58,526.42	205,614.00	1,154	Nov. 8, 1918	12	
4443	Fairfax.	57,223.02	1,267.36	120,577.53	61,385.80	11,506.31	13,032.03	742	Apr. 6, 1918	12	
4437	Fanning.		61,291.61	28,558.38	1,267.91	818.43	232,735.41	1,215	May 21, 1912	10	
4332	Farrinhol.		28,558.38	208,357.60	208,357.60	3,246.77	446,242.23	1,215	May 10, 1921	1	
4334	Farrinhol.		146,558.08	217,029.84	198,362.62	3,246.77	446,242.23	1,215	Aug. 3, 1920	11	
4301	Farragut.		31,510.33	131,151.49	82,912.67	1,141.34	218,205.50	1,215	Oct. 28, 1920	11	
4250	Fisher.		108,988.40	171,701.21	69.17	1,897.91	34,384.32	700	Oct. 28, 1909		
4190	Flodde.		1,031.10	108,988.40	38,924.32	32,247.14	240,972.57	1,215	Dec. 31, 1919	5	
4228	Ford.		2,651.86	176,714.00	19,925.08	40,186.47	168,927.42	1,191	Mar. 21, 1919	12	
4257	Fox.		91,246.72	108,988.40	326,092.18	21,562.88	442,666.81	1,215	Dec. 31, 1920	12	
4123	Gambie.		2,346.72	176,944.99	130,717.67	6,706.92	374,201.99	1,215	Dec. 31, 1920	10	
4200	Gillis.		37,773.95	160,300.22	4,898.29	3,391.47	187,270.03	1,215	Nov. 29, 1918	12	
4233	Glimmer.		115,335.58	274,651.65	135,116.12	74,450.06	213,645.78	1,215	Sept. 3, 1919	12	
4247	God.		65,404.01	82,311.96	202,779.74	28,946.48	438,914.95	1,215	do.	12	
4186	Godsborough.		1,699.58	147,145.51	18,456.28	4,692.21	296,245.27	1,215	Jan. 19, 1921	5	
4192	Graham.		128,761.22	273,218.06	18,456.28	4,692.21	340,371.37	1,215	Jan. 26, 1920	12	
4206	Greene.		50,601.57	295,096.37	118,146.69	8,074.98	425,839.24	1,215	Mar. 13, 1920	12	
4145	Greer.		33,115.00	256,221.25	45,902.67	7,678.96	138,634.99	1,215	May 10, 1919	12	
4082	Gregory.		1,082.22	119,290.03	11,070.54	83,273.02	417,945.87	1,154	Dec. 31, 1918	12	
4092	Gridley.		36,038.27	229,203.03	78,700.34	9,647.30	163,037.47	1,191	June 1, 1918	12	
4072	Gwin.		66,076.55	170,308.74	9,231.43	2,735.39	122,298.07	1,125	Mar. 8, 1919	12	
4133	Hale.		79,381.60	133,192.99	23,192.99	9,647.30	196,257.12	1,125	June 1, 1919	12	
4141	Hamilton.		72,168.88	149,044.94	13,174.49	16,094.62	187,271.03	1,154	June 7, 1919	12	
4307	Hamilton, Paul.		81,335.49	200,235.24	20,235.24	11,292.26	394,430.54	1,215	Sept. 21, 1920	12	
4183	Harden.		66,946.57	185,385.07	206,114.08	2,930.79	394,430.54	1,215	Sept. 21, 1920	12	
4091	Harding.		144,358.39	121,294.13	181,341.08	31,330.39	164,465.00	1,215	Jan. 7, 1919	12	
4110	Hart.		112,143.18	254,307.80	13,657.94	85,034.22	431,048.53	1,195	Jan. 26, 1919	12	

4201	Harfield	1,679.53	119,462.54	255,208.57	81,945.33	31,255.11	369,409.01	1,215	Apr. 16, 1920
4202	Hazelwood	3,701.95	81,019.58	155,776.07	25,537.25	2,900.89	103,917.21	1,191	Feb. 20, 1919
4203	Hendry	328.85	127,183.03	216,824.12	65,598.26	2,955.54	3,403.44	1,742	Dec. 30, 1912
4204	Hendaw	2,522.63	89,028.27	216,824.12	28,741.29	30,269.07	294,916.26	1,215	Dec. 10, 1919
4205	Hendert	2,378.11	127,183.03	275,968.53	194,608.46	18,327.68	334,966.09	1,215	Nov. 21, 1919
4206	Hendon	1,978.66	66,416.61	112,046.49	10,713.12	82,161.25	240,953.43	1,191	Sept. 14, 1920
4207	Hogan	7,785.42	77,972.55	147,643.81	10,016.12	2,621.54	157,868.89	1,215	Oct. 1, 1919
4208	Hopwell	3,784.25	46,246.82	128,297.79	189,890.34	2,621.54	232,106.58	1,215	Mar. 21, 1921
4209	Hopkins	2,844.95	41,606.82	60,257.02	16,494.31	60,301.10	349,161.44	1,215	Mar. 21, 1921
4210	Hovey, C. E.	2,637.94	130,016.34	274,964.79	16,494.31	60,301.10	349,161.44	1,191	Jan. 29, 1920
4211	Howard	823.21	63,063.93	110,072.48	150,105.20	10,244.64	261,817.13	1,215	Oct. 27, 1920
4212	Hubert	532.74	64,758.38	101,467.34	150,105.20	10,244.64	261,817.13	1,215	Apr. 26, 1921
4213	Hull	3,315.81	106,045.74	235,886.86	229,715.01	24,523.82	499,925.69	1,215	Sept. 30, 1920
4214	Hunt	1,948.68	61,363.51	95,437.66	237,715.01	13,405.32	337,576.80	1,191	May 15, 1919
4215	Ingram	1,815.78	30,434.80	77,446.93	14,232.31	4,619.90	96,308.14	1,215	June 28, 1919
4216	Ingram, Osmond	1,325.77	71,065.55	120,042.08	42,232.50	20,908.27	200,908.27	1,215	Sept. 12, 1918
4217	Isherwood	1,698.41	69,876.74	157,841.98	38,247.40	12,542.72	183,215.00	1,185	Dec. 12, 1918
4218	Israel	6,636.20	44,021.58	89,937.19	3,444.41	75,195.53	206,998.14	1,211	Oct. 22, 1912
4219	Jacob Jones	2,287.64	47,940.33	112,409.12	19,283.49	5,418.78	174.72	742	Oct. 22, 1912
4220	Jarvis	53.39	103.76	157.15	10.00	6,936.21	7,103.36	742	June 15, 1912
4221	Jenkins	697.71	72,573.38	115,510.97	214,203.35	1,550.06	331,264.38	1,215	Sept. 30, 1920
4222	Jones, Wm	121.72	46,819.95	63,384.05	309,857.06	2,096.83	375,327.94	1,215	Apr. 19, 1921
4223	Jones, Paul	171.63	57,798.17	127,232.05	12,843.26	3,563.22	3,560.19	1,191	May 25, 1912
4224	Kalk	1,299.30	57,988.17	172,144.76	147,527.96	31,471.74	171,567.05	1,101	Mar. 29, 1919
4225	Kane	2,749.46	48,435.90	172,144.76	181,179.93	1,788.82	380,148.99	1,215	Aug. 28, 1920
4226	Kennedy	947.22	102,836.60	186,957.73	191,179.93	10,121.18	371,956.48	1,154	Apr. 2, 1919
4227	Kennison	1,962.39	64,140.40	140,055.84	23,663.65	113,514.89	225,894.68	1,188	Apr. 20, 1918
4228	Kimberly	1,026.48	34,954.12	88,068.14	24,528.94	582.30	288,219.74	1,215	Feb. 7, 1921
4229	Kidder	26.92	37,764.76	46,108.50	204,949.56	23,607.05	173,725.84	1,154	Dec. 17, 1920
4230	Killing	1,278.46	64,871.69	139,746.31	204,949.56	1,762.51	286,062.25	1,215	Dec. 24, 1920
4231	Kling	1,366.16	67,014.91	189,550.18	222,435.47	8,654.92	210,041.40	1,215	Aug. 22, 1918
4232	Kelly	2,413.69	90,739.52	179,291.22	222,435.47	1,631.62	285,947.34	1,215	Apr. 18, 1921
4233	Lamberton	4.92	32,571.45	32,576.37	176,018.49	1,888.22	269,483.06	1,215	Apr. 19, 1921
4234	Lamson	1,033.82	40,498.53	30,468.53	16,069.89	1,824.52	143,053.38	1,205	Oct. 26, 1918
4235	Lamson	2,117.73	41,196.15	98,103.74	21,608.14	25,342.50	143,053.38	1,215	Dec. 10, 1919
4236	Lardner	2,971.37	47,094.64	140,119.42	70,190.15	23,055.26	233,365.43	1,215	Mar. 17, 1919
4237	Laub	255.85	44,861.34	78,332.32	8,670.82	2,968.05	89,946.36	1,215	Dec. 24, 1920
4238	La Vallette	15,491.36	50,225.95	63,759.39	214,106.80	59,233.12	278,536.24	1,154	Oct. 2, 1918
4239	Lee	1,762.25	121,005.23	222,516.42	18,068.66	59,233.12	299,948.20	1,211	Oct. 30, 1920
4240	Leary	1,121.58	117,035.23	269,825.98	18,068.66	21,838.25	390,789.75	1,215	Dec. 5, 1919
4241	Lee, S. P.	325.56	58,119.13	81,864.65	212,403.51	1,572.10	167,533.27	1,215	Oct. 30, 1920
4242	Litchfield	328.69	82,430.64	126,349.04	30,620.51	10,263.72	158,328.17	1,185	May 12, 1920
4243	Litchfield	1,620.66	62,056.37	125,006.95	17,444.07	15,877.13	228,447.73	1,215	Apr. 6, 1918
4244	Long	3,237.79	124,890.52	267,651.05	49,610.59	109,742.75	341,553.96	1,185	Oct. 20, 1919
4245	Luce	65,459.25	117,422.52	207,651.05	14,041.32	12,605.45	228,447.73	1,185	Sept. 11, 1918
4246	Ludlow	1,990.24	201,900.96	207,651.05	14,041.32	12,605.45	228,447.73	1,185	do.
4247	Mackenzie	1,182.53	93,257.80	171,422.52	14,041.32	59,957.77	194,816.84	1,185	July 25, 1919
4248	MacLeish	74,016.28	47,133.29	121,218.71	341,227.77	5,788.77	59,957.77	1,215	Aug. 2, 1920
4249	Maddox	694.19	64,968.21	116,152.62	17,671.00	35,302.76	186,126.40	1,185	Aug. 10, 1919

1921 Continued.

No.	Name of vessel.	Title C.		Stages issued, including provisions and medical stores.	Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipment.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.								
DESTROYERS continued.											
4102	Mahan.	\$138,960.72	\$2,020.14	\$132,845.30	\$28,865.16	\$20,448.13	\$126,278.78	\$191,562.07	1,185	Oct. 21, 1918	
4074	Marble.	60,178.24	388.87	59,789.47	88,749.17	8,718.49	47,407.23	144,765.21	1,123	Oct. 15, 1917	12
4201	Marmes.	7,688.63	40,117.47	47,806.10	205,069.30	1,118.38	1,118.38	255,193.98	1,215	Oct. 22, 1921	
4104	Nacoms.	121,846.06	1,826.67	119,019.33	253,631.21	72,663.71	39,929.67	346,244.64	1,215	Feb. 28, 1920	
4104	Navyard.							3,101.42	742	July 22, 1911	
4104	Navyard.	62,135.43	1,400.63	63,536.06	108,072.31	14,339.42	105,230.10	227,831.86	1,185	Sept. 29, 1918	
4028	McCall.						22,891.83	22,891.83	742	Jan. 23, 1911	
4274	McCall.	43,713.46	873.88	44,587.34	108,004.80	9,931.26	9,889.03	127,777.18	1,215	May 19, 1919	12
4274	McCall.	137,440.26	3,013.73	140,454.00	245,594.13	33,130.34	4,329.76	283,493.23	1,215	Sept. 22, 1919	12
4274	McCall.	33,572.63	3,356.13	36,928.76	115,346.04	9,117.97	8,913.78	130,613.79	1,215	Apr. 30, 1919	12
4257	McDonnell.	40,014.26	1,901.40	41,915.66	79,230.13	13,490.12	86,960.08	191,718.33	1,215	Mar. 26, 1914	12
4064	McDonnell.	70,421.60	3,788.12	74,209.72	79,173.81	23,136.18	9,559.68	378,930.62	1,020	Jan. 16, 1914	12
4257	McDonnell.	80,240.76	3,199.62	83,440.38	103,274.00	25,513.61	9,559.68	181,739.49	1,215	Sept. 30, 1920	12
4060	McKeen.	30,156.62	2,203.95	32,360.57	111,769.74	13,696.49	17,332.57	150,720.00	1,185	Feb. 25, 1919	12
4067	McKeen.	37,733.13	3,122.44	40,855.57	73,215.08	38,478.78	11,303.26	150,720.00	1,185	Sept. 7, 1919	12
4264	McMahon.	37,953.79	1,443.36	39,397.15	106,811.08	8,822.48	1,114.48	85,801.83	215	Apr. 5, 1919	10
4223	McDonough.	81,020.40	1,056.33	82,076.73	166,511.44	290,297.39	1,108.35	230,580.20	2,211	Aug. 30, 1920	
4335	Meade.	39,889.00	1,620.87	41,509.87	20,117.46	290,297.39	54,070.46	197,513.35	2,211	May 31, 1921	12
4335	Meade.	36,174.47	71.80	36,142.67	7,181.27	13,277.00	714.49	197,513.35	2,211	Sept. 8, 1919	12
4165	Meer.	124,821.12	7,365.64	132,186.76	81,704.55	11,277.00	29,757.40	125,730.10	1,185	June 29, 1919	12
4279	Meer.				262,280.58	65,068.37	2,139.02	269,647.87	1,215	Dec. 17, 1919	12
4032	Montgomery.				1,905.84	39.00	2,139.02	3,581.02	742	June 21, 1911	12
4277	Moody.	79,373.60	1,557.40	80,931.00	167,731.07	9,001.39	7,714.07	184,446.53	2,211	Jan. 26, 1918	12
4271	Morris.	120,836.39	1,801.83	122,638.22	221,261.58	78,965.36	3,144.84	303,311.98	1,215	Dec. 17, 1919	12
4165	Murphy.	67,963.69	3,130.16	71,093.85	150,321.01	13,467.85	64,097.36	227,862.22	1,215	Nov. 25, 1917	12
4325	Murphy.	110,969.26	1,664.75	112,634.01	165,979.34	4,865.43	26,307.91	197,172.08	1,185	Mar. 20, 1921	
4067	Murray.		6.72	31,222.57	31,222.57	213,892.20	28,881.26	245,992.84	1,185	Aug. 20, 1918	7
4311	Nicholas.	145,817.78	1,673.36	147,491.14	281,654.71	13,090.68	140,500.37	435,254.70	1,185	Nov. 23, 1920	12
4311	Nicholas.	17,623.82	2,88.01	19,511.83	58,583.67	512,765.87	2,056.21	273,105.70	1,000	Apr. 15, 1921	1
4032	Nicholson.	57,014.17	770.18	57,784.35	91,246.55	252,390.54	26,092.96	169,720.05	1,000	Feb. 15, 1921	12
4343	Non.	392.40	60,015.19	60,407.59	93,455.60	195,419.96	3,124.27	292,031.22	1,000	Apr. 27, 1919	12
4177	O'Hanlon.	68,175.77	1,000.36	69,176.13	121,077.11	65,640.73	62,440.75	197,061.44	1,000	May 22, 1915	12
4061	O'Brien.	78,972.54	64,900.00	143,872.54	144,973.12	199,703.21	52,731.14	257,510.44	1,000	May 22, 1915	12
4265	Osburne.	66,916.98	1,703.85	68,620.83	153,349.82	3,801.84	3,411.84	206,733.22	1,185	June 30, 1920	12
4260	Overson.	125,131.13	1,540.83	126,671.96	218,830.16	306,735.82	6,447.40	581,013.44	1,185	June 30, 1920	12
4111	Palmer.	28,966.62		301,607.62	21,470.30	7,792.67	7,792.67	130,276.20	1,185	May 22, 1918	12

4048	Parber	30,407.60	28.79	38,273.97	68,710.36	79,794.53	90,593.59	1,036	Dec. 30, 1913	12
4048	Parrott	99,551.04	1,988.43	107,605.95	209,145.42	73,410.13	281,827.51	1,215	May 11, 1911	12
4048	Patterson			1,198.48	1,08.28		1,630.28	1,742	Oct. 1, 1911	7
4048	Paulding		71.48	80,108.10	90,704.87	100,918.03	1,498.83	1,215	Nov. 28, 1920	7
4048	Paulding, J. K.		21.40	87,086.27	137,854.27	317,496.47	273,293.98	1,215	Oct. 31, 1920	7
4048	Pearl		691.99	57,843.32	131,167.22	7,731.90	19,020.42	1,215	Mar. 31, 1920	12
4048	Perkins		993.04	103.82	408.62		2,230.44	1,742	Nov. 18, 1910	12
4048	Philp			82,851.02	168,728.04	54,370.39	61,134.98	1,215	Aug. 24, 1919	12
4048	Philp		1,201.88	82,851.02	168,728.04	54,370.39	61,134.98	1,184	Dec. 15, 1920	12
4048	Polson		358.82	63,575.02	105,064.79	175,928.74	248,941.22	1,215	Oct. 27, 1920	6
4048	Pope		635.76	98,396.20	102,453.91	310,574.14	238,663.41	1,215	Apr. 17, 1916	8
4048	Porter		521.56	98,396.20	78,211.45	47,796.37	148,920.43	1,060	Apr. 17, 1916	12
4048	Preble		1,444.41	194,158.21	228,810.34	11,141.13	11,384.95	1,215	Aug. 23, 1920	10
4048	Preson, Wm. B.		1,088.76	133,837.63	228,478.02	73,599.14	321,817.67	1,215	Aug. 23, 1920	12
4048	Preston			61,698.28	61,698.28	233,623.39	304,141.36	1,215	Dec. 18, 1921	12
4048	Putnam		64,170.33	178,019.95	6,523.97	6,523.97	228,315.49	1,215	Dec. 18, 1919	12
4048	Radford		85,709.17	170,177.35	10,604.16	10,604.16	184,937.12	1,213	Sept. 30, 1918	12
4048	Ramsay		1,240.26	134,754.04	53,262.45	53,262.45	184,937.12	1,213	Feb. 15, 1919	12
4048	Rathbun			34,784.92	34,784.92		281,866.48	1,165	June 24, 1918	12
4048	Reid		1,866.71	180,940.92	26,581.13		34,628.04	700	Dec. 3, 1909	12
4048	Reid		1,468.35	229,752.11	94,428.67		294,862.21	1,215	Dec. 3, 1919	12
4048	Reno		1,126.00	146,228.73	10,300.59		449,862.21	1,215	July 23, 1920	11
4048	Reushaw		1,855.78	213,853.19	287,029.69		224,968.80	1,191	July 31, 1919	12
4048	Reuben, James		376.34	113,866.16	121,399.04		518,230.83	1,215	Sept. 24, 1920	9
4048	Ringgold		32,551.50	278,916.51	31,783.80		280,862.39	1,191	Nov. 14, 1918	12
4048	Rival		2,300.56	151,286.57	67,518.09		398,918.97	1,191	May 28, 1919	12
4048	Robinson		1,518.70	130,700.45	59,108.30		300,754.01	1,191	Oct. 19, 1918	12
4048	Rodgers		25.07	118.52			215,143.71	1,215	July 22, 1919	12
4048	Roe		1,104.19	154,904.68	16,998.22		6,968.58	742	Sept. 17, 1910	12
4048	Roper		202.30	100,565.34	23,260.52		245,271.48	1,165	Feb. 25, 1919	12
4048	Rowan		1,115.42	64,527.05	70,872.00		198,222.80	1,111	June 22, 1916	12
4048	Rampson		2,383.86	160,107.50	198,062.42		146,829.85	1,111	June 27, 1916	11
4048	Sanders		140,241.07	264,775.66	15,093.24		363,004.80	1,215	Apr. 10, 1920	7
4048	Sattler		2,459.50	278,983.05	13,486.73		327,267.55	1,215	Dec. 23, 1919	12
4048	Schenck		751.41	111,707.14	17,930.21		323,734.76	1,211	Oct. 30, 1919	12
4048	Schley		17.68	49,026.12	215,941.97		132,824.79	1,191	Sept. 20, 1918	12
4048	Selfridge		8,890.73	259,335.64	91,285.84		274,586.78	1,215	Feb. 17, 1921	4
4048	Semmes		1,140.85	131,312.94	91,285.84		424,967.27	1,215	Feb. 17, 1921	4
4048	Shaw		1,021.40	53,244.19	32,430.05		164,346.19	1,215	Nov. 28, 1919	12
4048	Shaw		2,061.56	58,617.75	97,154.24		182,327.87	1,100	Apr. 9, 1917	12
4048	Shaw		24.48	55,462.55	55,189.62		252,179.51	1,215	July 3, 1921	12
4048	Shubrick		2,008.77	40,601.64	196,236.12		146,234.85	1,215	July 3, 1919	12
4048	Sigard		115,211.78	132,100.62	95,163.89		352,977.41	1,215	June 9, 1920	12
4048	Sigourney		1,186.81	54,927.87	209,800.39		152,697.41	1,191	May 15, 1918	12
4048	Simpson		476.87	100,066.77	163,887.94		463,279.59	1,215	Nov. 8, 1919	7
4048	Sinclair		2,182.40	117,348.51	242,629.49		282,739.12	1,215	Oct. 8, 1919	12
4048	Sloat		117.72	45,283.30	57,569.53		263,538.67	1,215	Dec. 30, 1920	6
4048	Smith		31,798.15	31,798.15			38,464.41			
4048	Smith, Robert		30.75	36,996.08	161,608.92		208,335.14	1,215	Mar. 17, 1921	3
4048	Smith, Thompson		2,010.60	222,633.65	10,372.22		238,665.97	1,215	Dec. 10, 1919	12
4048	Somers		813.81	157,996.88	169,184.42		337,313.34	1,215	June 23, 1920	12

4163 Walker.....	35,941.48	403.46	26,759.75	63,104.69	3,507.85	1,712.28	68,324.82	1,191	Jan. 31, 1919	12
4169 Ward.....	50,940.21	4,421.54	55,476.37	119,838.02	20,295.22	83,450.57	223,583.81	1,154	July 24, 1918	12
4330 Warrington.....		474.30	13.22	487.52		8,276.54	2,215.08	742	Mar. 20, 1900	
4338 Warrmouth.....			4.61		43.43		8,324.58	215		
4115 Waters.....	79,632.32	970.75	83,123.72	163,726.79	74,574.96	69,973.66	169,126.50	1,154	Aug. 8, 1918	12
4257 Welles.....	43,397.92	1,834.80	51,421.39	96,654.20	37,579.46	79,135.82	213,309.48	1,215	Sept. 2, 1919	
4195 C. Wood.....	27,286.61	1,354.62	63,116.37	80,737.50	208,072.30	9,715.50	308,545.39	1,215	Jan. 23, 1921	5
4217 Whipple.....	88,856.43	399.56	119,650.30	208,912.29	13,098.88	5,318.00	227,329.26	1,215	Apr. 23, 1923	12
4075 Wickes.....	101,117.36	1,488.37	108,601.70	211,207.43	17,375.34	50,275.88	287,858.63	1,154	Apr. 31, 1918	9
4067 Wilkes.....	40,538.14	1,433.05	59,353.40	101,324.59	34,589.80	50,544.72	186,459.20	1,104	Nov. 10, 1916	12
4108 Williams.....	43,172.93	1,529.49	77,861.26	79,583.68	21,217.80	7,144.75	98,875.93	1,191	Mar. 10, 1919	12
4244 Williamson.....	87,524.06	445.18	72,661.71	160,530.95	246,521.83	38,549.19	414,107.53	1,215	Oct. 20, 1920	8
4053 Winslow.....	47,318.97	1,167.45	43,950.11	92,436.53	53,303.16	1,757.72	184,288.82	1,050	Aug. 7, 1915	12
4317 Wood.....	41,963.56	346.27	38,920.51	39,266.78	194,909.53	1,016.57	233,186.08	1,215	Jan. 28, 1921	5
4309 Woodbury.....	52,501.06	344.39	60,017.49	102,325.44	206,101.65	1,757.72	310,274.81	1,215	Sept. 30, 1918	8
4077 Wroolsey.....	11,860.00	889.40	64,097.11	117,577.66	10,715.45	55,698.34	181,904.35	1,215	Feb. 24, 1920	12
4288 Wroton.....	13,634.20	1,031.08	59,833.89	102,745.87	69,113.97	19,838.75	191,716.69	1,215	Dec. 31, 1920	6
4314 Yarrowborough.....	23.00	191.29	46,662.88	54,792.37	218,317.92	49,838.59	273,940.12	1,215	Nov. 25, 1920	12
4143 Yarnall.....	86,164.80	23.00	142,885.37	228,573.26	30,672.51	1,218.23	268,104.16	1,194	Nov. 25, 1920	7
4312 Young.....	17,553.77	260.05	51,960.71	169,734.13	207,574.09	1,218.23	278,516.45	1,215	Dec. 10, 1920	6
4313 Zellin.....	46,833.14	609.08	71,816.20	119,278.42	211,231.61	1,979.71	332,468.74	1,215		
Total.....	19,858,218.86	523,405.42	21,950,134.08	42,340,848.36	23,666,135.20	9,862,115.36	75,860,098.92			

4122	Breece.....	19,237.31	319.10	16,239.58	35,735.99	703.90	1,667.82	38,167.71	92
4252	Brooks.....	31,013.67	71.31	40,066.25	71,151.43	3,662.18	295.99	75,136.60	92
4210	Broome.....	27,226.43	345.45	35,163.15	62,988.03	9,896.20	426.49	73,300.72	92
4248	Bary.....	16,185.34	490.08	26,699.50	43,374.92	4,902.83	269.98	48,577.73	92
4329	Bruce.....	25,035.14	207.00	21,166.14	46,436.28	19,468.68		65,904.88	92
4131	Buchanan.....	24,820.01	205.02	35,375.02	57,378.02	1,394.16	489.89	59,262.07	92
4222	Bulmer.....	25,627.72	1,159.05	32,473.92	52,290.69	1,475.87	100.83	53,846.49	92
4299	Burns, John Francis.....	9,097.42	371.60	9,239.64	18,708.66	2,301.20	883.25	30,548.49	92
4171	Burns.....	25,312.99	387.15	36,712.84	62,412.98	1,041.91	1,041.91	64,225.82	92
4029	Burrows.....	14,584.24	451.06	17,225.15	32,260.45	405.75	156.00	32,822.20	92
4166	Bush.....	14,040.34		25,723.65	39,763.99	9,173.55	61.61	49,001.15	92
4069	Caldwell.....	13,146.58	179.06	24,466.17	37,701.81	1,869.67	1,232.98	40,894.46	92
4285	Case.....	10,635.91	555.61	12,992.18	26,998.57	1,948.51	2,321.98	33,299.06	92
4043	Cassin.....	15,470.80	330.11	7,899.68	19,165.70	1,059.44		20,226.04	92
4104	Champlin.....	30,163.13	2,432.82	39,115.76	71,711.71	13,423.88	466.77	85,602.36	92
4206	Chandler.....	11,088.11	311.70	10,377.04	21,708.85	24,744.94		46,541.69	92
4323	Chase.....	12,897.44	1,155.97	4,312.26	17,863.67	984.61	28.18	18,511.99	92
4206	Chauncey.....	13,746.00	938.18	11,275.88	25,690.06	1,639.18	2.19	26,826.86	92
4106	Chev.....	31,620.57	94.01	13,696.16	45,620.74	10,979.43		55,069.12	92
4241	Childs.....	17,558.33	257.00	15,941.39	33,754.72	1,639.18	10,334.96	44,094.68	92
4140	Claxton.....	17,942.27	151.26	8,331.72	25,528.25	2,696.36	61,016.75	86,511.39	92
4181	Clemons.....	12,635.61	253.82	9,322.21	22,211.64	4,471.19	1,018.43	27,704.26	92
4326	Coghlan.....	19,085.20	227.54	12,144.64	31,435.06	2,529.83	33,272.90	69,238.17	92
4155	Colburn.....	13,057.91	149.20	16,427.95	30,535.06	60,728.12	24,712.90	115,978.15	92
4085	Colburn.....	13,835.78	394.88	18,461.00	33,012.68	5,520.75	1,025.50	33,693.08	92
4072	Conner.....	19,173.41	218.28	25,589.97	39,860.45	2,274.26	7,053.05	43,200.15	92
4038	Conydam.....	12,551.98	87.60	21,694.62	47,831.66	2,376.82	2,960.80	50,792.46	92
4281	Corr.....	15,779.38	340.26	14,209.33	31,928.87	1,801.57	28.68	32,714.50	92
4167	Coveil.....	28,697.37	4,225.96	12,419.51	43,342.84	1,901.57	11,206.33	54,544.74	92
4109	Coveil.....	15,830.43	182.48	16,962.50	32,603.47	3,043.30	9,997.50	33,628.76	92
4070	Crayon.....	14,274.54	415.82	12,115.66	22,600.81	3,485.40	61,448.13	61,448.13	92
4164	Cresby.....	24,765.26	246.86	32,115.66	57,177.78	3,462.41	5,704.20	61,467.58	92
4134	Cummings.....	13,866.16	112.00	27,918.88	41,867.04	1,064.34	10,567.44	52,434.48	92
4040	Cummings.....	27,012.62	257.00	58,199.10	85,468.72	2,736.21	9.03	88,204.95	92
4055	Cushing.....	19,068.71	259.40	17,098.05	27,328.98	1,510.16	6,621.32	33,950.16	92
4187	Dalgren.....	14,023.45	182.00	13,794.33	30,006.78	4,572.94	21,280.34	35,771.18	92
4290	Dallas.....	19,121.47	186.55	27,334.88	46,666.90	664.00	47,142.40	47,142.40	92
4085	Davis.....	16,728.68	184.10	18,231.88	37,120.97	4,321.43	26,694.05	68,131.55	92
4129	De Long.....	14,123.65	461.18	19,603.88	34,192.71	10,768.48	111.82	45,072.47	92
4361	Delphy.....	12,304.92	212.84	21,468.16	34,000.92	6,068.25	538.27	37,012.82	92
4316	Dent.....	31,775.41	274.81	46,516.31	77,966.33	223.74	568.70	78,537.73	92
4311	Deatour.....	30,128.65	324.81	46,833.93	77,538.39	6,530.64	830.02	85,327.19	92
4157	Dickson.....	13,891.97	510.81	24,649.33	38,723.50	5,372.48	93,105.53	93,105.53	92
4090	Dowies.....	18,967.67	27.16	12,566.94	32,045.42	2,000.38	288.02	43,500.01	92
4289	Doyen.....	6,119.64	149.20	3,618.83	9,867.73	1,490.52	41,628.30	75,674.10	92
4026	Drayton.....	16,163.53	188.30	13,496.88	29,418.71	5,210.13	23,067.06	34,445.31	92
4042	Duncan.....						24,699.98	59,728.82	40
4152	Du Pont.....								

* Credit.

1 All destroyers operating on 50 per cent complement basis except otherwise shown.

1922—Continued.
[First quarter]—Continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
DESTRUCTORS continued.									
4041	Dyer	\$14,022.79	\$517.79	\$27,132.07	\$3,762.95	\$3,530.15	\$34,425.17		
4219	Edsall	24,404.62	405.38	57,213.94	1,046.22	25.00	58,285.16	92	
4216	Edwards, John D.	50,291.25	441.11	50,732.36	1,825.15	4,288.00	56,285.51	92	
4263	Edwards	12,193.81	474.16	12,667.97	10,447.88	26.61	32,508.27		
4146	Elliot	29,063.76	198.60	29,262.36	74,310.97	74.91	178,909.69		
4154	Ellis	19,603.33	210.70	19,814.03	32,719.05	10,675.98	40,573.00		
4056	Ericsson	13,145.51	292.10	13,437.61	32,688.99	131.63	33,590.54		
4078	Evans	27,017.58	182.09	27,200.00	64,838.29	27.03	76,434.24	92	
4037	Fairfax	14,676.69	6.00	14,682.79	33,846.11	40,180.77	91,384.01		
4037	Fanning	15,959.23	204.78	16,164.01	38,665.98	934.07	47,415.82		92
4332	Farrington	20,764.36	322.76	21,087.12	58,508.96	246.89	59,793.57	92	
4304	Farrington	9,909.42	356.96	6,889.57	1,591.70	8.73	16,788.40		
4020	Flusser	15,541.59	180.46	15,722.05	26.51		26.51		
4029	do	13,084.73	243.64	13,328.37	60,104.27	1,162.57	61,717.42		
4169	Foot	20,057.76	445.70	17,100.56	30,342.63	2,069.61	35,352.13		
4228	Ford, John D.	33,017.47	362.74	16,921.04	37,444.50	34,484.67	72,824.67		
4297	Fox	11,087.97	314.78	38,713.67	71,731.14	160.13	37,894.38	92	
4123	Fuller	18,145.43	211.94	11,670.14	23,130.85	67.51	22,841.33		
4253	Gamble	13,379.97	869.48	34,400.32	31,921.17	2,100.87	37,264.93		
4260	Gillis	29,325.64	260.18	15,940.11	49,723.39	14.92	35,777.00		
4247	Glimmer	26,633.40	370.10	19,329.96	1,946.51	2,069.60	30,913.83	92	
4192	Goff	29,165.51	347.14	6,900.48	23,773.70	1,971.01	32,318.75		
4266	Goldborough	11,398.07	509.29	51,971.67	79,198.37	1,904.31	78,948.24	92	
4145	Greene	33,776.53	757.47	44,110.36	17,623.01	1,034.00	30,437.11		
4042	Gregory	14,292.96	230.97	7,465.87	19,273.23	3,063.83	82,170.81		
4092	Gridley	13,145.90	210.68	49,360.14	77,977.14	1,841.71	39,174.60		
4071	Gwin	15,505.07	424.00	38,324.96	35,324.96	315.05	41,941.71		
4153	Hale	19,934.51	307.40	24,040.41	1,510.04	267.57	43,600.58		
4141	Hamilton	16,088.86	205.60	24,094.72	2,077.60	1,442.89	41,934.08		
4307	Hamilton, Paul	23,678.19	304.00	37,026.03	4,127.43	777.00	47,724.50		
4183	Harnden	16,428.20	157.94	32,233.65	1,190.31	14,300.79	84,770.02	92	
4091	Harding	23,794.81	643.43	60,332.66	24,230.15	207.79	64,699.21		
				39,845.64	3,801.72	21.85	64,589.22	92	
				59,898.89	2,565.95				

4110	Hart.....	28,932.78	651.87	56,080.52	85,675.08	1,765.41	315.96	57,776.47	92
4217	Hatfield.....	24,496.38	504.80	17,905.92	52,650.37	4,392.83	2,691.57	59,994.77	92
4271	Hastwood.....	14,231.13		18,196.12	52,932.05	874.24	35,811.01	35,811.01	
4309	Heushaw.....						283.86	283.86	
4378	Henley.....	17,097.18	336.14	22,394.68	39,818.00	1,914.38	37,457.73	79,190.11	
4198	Herndon.....	25,157.60	251.77	42,597.39	68,006.76	2,504.17	2,504.17	122.18	92
4178	Hogan.....	18,290.94	205.60	21,780.43	40,276.97	1,759.73	3,329.72	45,366.42	
4249	Hopewell.....	20,403.00	1,122.30	7,750.62	29,275.92	1,018.30	11.06	30,305.03	
4181	Hovey, C. E.....	19,071.46	316.92	22,571.19	41,959.57	2,152.75	2,073.71	46,195.03	
4208	Hovick.....	14,512.80	171.20	44,301.25	35,827.77	1,834.47	11,963.61	49,625.86	92
4179	Howard.....	30,987.52	513.55	44,301.25	79,802.32	6,461.98	614.96	86,879.26	
4342	Hulbert.....	21,156.98	712.20	11,221.65	33,063.83	1,055.65	2.33	34,151.81	
4330	Hull.....	16,358.63	237.56	26,491.15	43,087.34	1,204.82	374.27	44,696.43	
4194	Humphreys.....	9,614.22	774.28	14,968.34	25,376.84	1,739.47	405.92	33,522.23	92
4236	Hunt.....	14,304.71	97.05	54,724.94	69,026.70	1,817.02	244.06	71,087.78	
4111	Ingraham.....	15,898.71	232.60	9,373.76	25,505.07	768.41	37,493.90	63,767.38	
4255	Ingram, Osmond.....	25,026.91	831.40	23,577.04	49,435.35	694.20	641.31	50,770.86	92
4284	Isherwood.....	12,618.27	556.30	12,432.15	25,606.72	456.55	318.50	26,381.77	
4098	Israel.....	12,494.93	506.84	12,865.75	25,867.52	675.69	3,709.86	30,253.07	
4130	Jacob Jones.....	15,869.46		10,664.90	26,534.35	2,614.26	1.13	29,149.74	
4038	Jarvis.....	19,598.51	245.10	18,064.55	37,898.16	3,229.21	413.49	41,540.86	92
4042	Jenkins.....						491.31	491.31	
4230	Jones, William.....	31,997.82	1,039.41	27,204.90	60,242.03	401.03	250.03	60,893.09	
4230	Jones, Paul.....	13,491.83	479.18	17,306.71	31,277.72	284.72	129.79	31,692.23	
4041	Jouett.....						461.48	461.48	
4170	Kalk.....	16,268.48	255.40	29,438.81	45,962.89	2,588.48	1,656.26	50,207.63	92
4235	Kane.....	27,752.14	137.72	14,963.49	42,833.35	1,296.93	346.70	44,516.98	
4306	Kennedy.....	21,236.32	187.55	36,300.45	57,724.32	8,960.53	107.00	66,700.85	
4138	Kennison.....	20,070.04	211.90	7,861.15	28,143.09	3,366.92	8,710.71	40,220.72	92
4080	Kimberly.....	14,794.70	394.89	18,103.12	33,292.71	1,883.88	325.19	35,501.78	
4319	Kidder.....	13,846.98	271.52	6,297.35	20,418.91	24,942.15	212.84	45,573.90	
4137	Kilty.....	13,909.23	247.88	8,183.92	22,340.97	3,463.97	6,141.29	31,951.23	
4242	King.....	16,695.64	554.16	13,968.96	31,118.69	1,843.53	53,756.18	53,756.18	
4119	Lamberton.....	19,757.19	114.64	11,746.02	31,617.85	1,333.58	1,112.51	34,063.95	
4250	Lawrence.....	14,587.27	402.17	9,760.59	39,396.92	1,593.63	1,886.36	41,979.91	
4328	Lawson.....	10,588.60	137.62	24,410.48	20,498.81	36,323.09	941.27	57,751.17	
4101	Lamsdale.....	15,548.93		12,501.60	28,050.53	159.41	4,264.94	32,474.88	
4296	Lardner.....	13,319.37	275.98	11,746.51	28,241.86	817.17	1,394.90	27,543.83	
4283	Laud.....	11,590.20	704.06	6,102.30	18,398.67	1,007.50	1,732.26	21,136.45	
4315	La Vallette.....	10,033.50	430.70	11,814.85	22,279.05	733.27	258.34	23,270.66	
4118	Lea.....	30,496.66	42.94	35,814.32	61,636.83	11,737.23	455.49	94,129.65	92
4158	Leary.....	26,694.54	402.10	35,814.32	62,900.96	8,511.63	787.91	65,401.83	
4310	Lee, S. P.....	12,313.46	398.54	9,967.82	22,669.82	1,712.96	1,003.14	23,184.59	
4336	Liechfield.....	13,812.89	408.15	11,426.09	25,647.13	32,084.92	1,240.73	25,177.06	
4079	Little.....	17,905.19	281.83	19,961.01	38,148.03	5,086.13	1,541.96	39,438.12	92
4269	Long.....	28,343.44	1,005.93	32,794.00	62,143.37	5,086.13	61.25	67,260.75	
4099	Lucas.....	16,114.31		10,999.71	27,814.05	1,899.79	2,556.74	32,270.58	
4112	Ludlow.....	27,337.40	570.10	15,540.65	47,148.55	1,795.58	17,460.58	62,704.71	92
4175	MacKenzie.....	33,544.49	513.22	8,682.82	42,740.53	1,673.68	34.44	44,448.65	
4220	MacLish.....	26,154.43	211.50	28,793.42	50,159.35	1,461.21	51,620.56	51,620.56	92

* (redit.

1922 Continued.
[First quarter] Continued.

No.	Name of vessel.	Title C.		Stores issued, including provisions.	Total operating expenses.	Equipage	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including committed provisions.						Days in full commission.	Operating with reduced complements in reserve or ordinary.
1108	Madison	\$17,283.65	\$885.50	\$11,708.10	\$29,387.33	\$1,126.67	\$6,447.96	\$36,941.89		
1102	Madison	29,120.94	189.30	9,476.17	38,786.61	1,008.08		40,355.33	92	
1074	Mercury	16,549.71		16,392.03	32,941.74	2,307.30	1,080.44	36,438.48		
1121	Marion	10,068.70	530.22	5,322.20	15,921.12	25,135.71	1,222.44	42,379.27		
1101	Maia	28,990.11	245.06	45,285.52	74,471.59	2,623.00	1,175.31	78,269.90	92	
1031	Mayaguez						252.36	252.36		
1100	Maure	19,173.95	119.68	16,252.34	35,545.97	529.71	380.75	38,466.43		92
1028	McCall									
1025	McCalla	379.72		11,006.26	34,276.97	4,220.90	48,346.04	140.62		
1256	McCallahan	16,384.65	268.04	22,970.17	39,623.76	2,601.26	55,401.33	76,843.80		92
1252	McCook	11,041.37	406.18	7,301.46	21,049.77	5,619.69	43,437.47	97,716.37		
1262	McDermitt	13,662.49	451.33	15,708.59	29,820.11	2,518.25	43,666.88	73,008.93		
4054	McDougal	26,296.23	43,764.22	43,764.22	70,001.15	4,744.32	378.13	75,123.50		
4237	McFarland	29,346.25		4,333.19	34,260.07	1,001.50	139.19	35,481.76	92	
4040	McKen	15,983.30	241.60	17,040.18	33,245.08	402.73	2,351.75	35,999.56		
4067	McKee	11,265.95	323.45	17,175.07	31,707.47	59,344.50	8,578.76	90,718.73		
4284	McLanahan	17,031.14	620.54	6,135.40	23,787.08	8,871.56	1,313.65	25,972.13		
4223	McLernick	26,063.95	1,076.07	38,300.06	65,402.63	909.49	673.65	66,925.17	92	
4531	MacDonough	13,354.03	1,076.07	33,023.16	55,617.29	5,433.06	687.69	58,728.07		
4274	Meade	16,763.68	124.36	16,466.33	37,850.83	3,846.01	356.47	38,583.84		
4535	Melvin	11,250.94		15,628.32	27,089.88	10,266.16	13.91	38,832.64		
4165	Mervine	13,001.82	163.74	15,628.32	28,359.90	25,562.71	165.71	52,086.31		
4279	Meyar	13,379.05	412.34	27,616.83	42,506.36	1,130.97	36,265.24	79,932.57		92
4052	Monaghan						302.04	302.04		
4121	Montgomery	17,474.81	105.10	18,511.83	36,004.65	1,226.93	928.07	38,252.38		
4277	Moody	17,473.62	347.01	24,498.57	42,307.20	1,612.70	42,996.52	87,116.42		
4271	Morris	15,462.31	478.96	27,751.28	43,719.53	12,086.93	2,317.81	58,136.27		
4105	Murford	16,253.87	257.66	15,367.64	32,273.91	1,064.86	5,281.01	38,726.64	92	
4325	Mullany	9,319.54	607.85	6,512.16	16,736.55	25,746.34	84.00	42,570.49		
4007	Murray	30,206.00		12,073.49	43,377.96	2,297.97	878.65	46,554.40	92	
4311	Nicholas	1,008.08	1,032.86	7,643.81	18,962.72	2,639.73	240.70	19,863.15		
4032	Nicholson	14,148.15	1,31.36	13,061.35	27,260.49	706.34	228.86	28,176.11		

4343	Noa.....	19,710.90	193.24	2+138.22	44,042.26	403.14	193.40	44,638.80
4177	O'Bannon	21,612.07	1,121.79	12,894.24	57,318.10	3,586.17	45.71	28,998.08
4061	O'Brien	14,511.72		26,317.25	40,428.97	9,440.41	5,707.55	55,680.23
4205	Osborne	15,221.91	73.44	14,577.52	29,872.87	8,401.78	35,462.54	60,137.17
4309	Overton	32,687.00	30.65	74,698.28	109,313.93	2,819.53	31,412.18	101,478.64
4161	Palmer	9,631.98	697.37	21,138.64	21,138.29	2,102.22	8,256.73	31,497.24
4048	Parker	12,706.51	62.00	24,223.27	54,650.68	5,544.56	486.78	43,234.91
4218	Parrott	27,007.23	464.48	26,378.07	58,650.68	1,683.26	396.46	58,534.63
4036	Patterson			2,400.00	2,400.00		35.28	2,794.46
4022	Paulding						1,004.89	39,832.50
4238	Paulding, James K	15,230.88	359.14	19,313.64	34,901.66	3,923.95	33,405.79	69,418.24
4226	Pearry	17,113.24	307.30	15,701.74	33,124.28	2,898.39	700.47	19,249.44
4098	Percival	10,568.48	382.42	6,058.68	17,009.58	636.39	3.29	813.03
4268	Perrins			22.50	22.50		105.29	56,927.25
4340	Perry						3,674.57	49,191.12
4076	Phillips	22,177.45	705.32	32,897.05	55,840.62	2,534.34	1,847.12	69,424.61
4227	Pillsbury	19,062.17	273.29	23,406.75	42,782.21	1,847.12	1,596.60	69,665.55
4225	Pope	17,789.86	206.70	24,010.08	32,100.64	8,587.73	403.25	71,749.09
4345	Porter	13,717.91	199.80	28,512.24	42,429.95	6,294.66	865.57	23,443.35
4345	Porter	24,217.26	285.90	36,171.41	60,674.57	1,864.89	817.68	43,228.80
4344	Preston, W. B.	24,052.09	194.04	43,761.15	70,007.28	1,864.89	1,943.70	36,636.48
4327	Prentiss	9,211.54	96.70	17,972.77	16,331.01	15,390.20	1,395.57	40,726.43
4287	Puritan	21,545.09	212.80	17,240.91	39,064.76	5,106.87	2,250.96	91,878.41
4287	Puritan	17,998.54	313.52	15,650.78	34,194.76	598.02	23,871.81	37,969.18
4120	Radford	19,998.07	545.84	18,000.79	31,253.70	3,965.73	118.30	43,972.69
4113	Railey	19,153.66	345.84	11,725.80	37,457.97	1,037.81	12,477.92	58,476.34
4292	Rathburne	32,317.48	845.82	11,573.55	74,237.35	2,276.04	1,072.60	39,794.93
4302	Reid	17,018.86	382.29	32,704.54	28,991.50	272.18	43.24	63,578.24
4302	Reid	20,685.16	382.29	32,704.54	28,991.50	892.27	496.17	35,383.82
4178	Reid	20,423.67	981.30	19,402.12	33,771.99	1,297.79	33.80	54,981.77
4245	Reuben, James	29,107.00	404.82	14,210.56	40,807.09	3,047.30	118.30	43,972.69
4089	Ringold	14,760.37	170.03	23,319.75	38,450.15	2,776.04	12,477.92	58,476.34
4171	Rising	32,790.75	8,458.61	21,405.89	62,665.25	892.27	496.17	35,383.82
4088	Robinson	184.10	16,228.25	16,228.25	33,965.38	892.27	496.17	35,383.82
4084	Rodgers	15,519.03	830.62	17,785.06	34,134.73	1,297.79	33.80	54,981.77
4024	Roche						33.80	54,981.77
4117	Roper	32,238.00	229.47	31,321.13	63,988.60	17,685.30	1,655.38	83,329.28
4064	Rowan	14,685.81	197.88	26,442.43	41,026.12	1,770.87	206.33	43,063.32
4063	Sampson					909.10	4,094.33	3,185.23
4243	Sands	33,592.14	86.78	5,062.75	38,761.67	2,448.83	3,696.96	50,666.86
4190	Satterlee	25,064.31	327.00	49,129.76	74,531.07	3,044.10	169.16	71,080.28
4108	Schenck	26,978.35	460.80	40,418.87	67,867.02	635.10	78.81	26,937.44
4139	Schney	15,751.24	369.36	9,102.93	25,223.53	25,364.85	823.22	44,936.45
4320	Selfridge	11,220.45	293.98	7,228.35	18,745.78	1,235.06	2,963.57	83,741.71
4189	Semmes	27,224.82	131.50	32,466.76	79,943.08	1,049.91	2,963.57	83,741.71
4281	Sharkey	13,449.43	371.55	13,673.31	27,496.29	1,049.91	2,963.57	83,741.71
4084	Shaw	15,083.37	481.53	19,324.26	34,903.16	1,049.91	623.11	36,569.27
4318	Shaw	10,888.12	327.36	16,134.30	17,349.98	4,317.24	1,788.39	21,908.11
4284	Shubrick	11,429.78	9,141.13	10,060.21	30,631.12	10,331.27	1,788.39	42,750.98

* Credit.

1922—Continued.
[First quarter]—Continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
DESTROYERS continued.									
4346	Seward.....	\$25,276.02	\$133.00	\$32,200.63	\$3,024.80	\$5,508.77	\$66,143.31	92	
4347	Sigsbee.....	15,501.00	55.76	16,175.03	1,559.49	58,123.03	91,414.80		
4351	Slipson.....	26,678.72	451.46	44,912.49	2,205.64	35.00	74,244.31	92	
4373	Sturair.....	21,119.66	324.49	12,774.95	3,197.63	64,669.43	102,086.29		
4316	Stuart.....	10,385.80	408.08	8,608.53	4,374.11	155.05	23,930.67		
4334	Smith, Robert.....	9,772.85	294.70	4,058.01	24,988.98	825.01	39,917.55		
4213	Smith, Thompson.....	26,965.90	44,853.24	38,378.51	2,871.10	7,987.86	121,036.70	92	
4301	Somers.....	16,670.30	28,47	9,097.17	26,195.94	61.63	26,818.43		
4207	Southard.....	28,182.20	167.60	36,283.66	64,643.49	139.99	71,556.17	92	
4192	Spruett.....	24,409.51	418.81	24,188.58	49,016.90	4,580.66	54,560.46	92	
4173	Stansbury.....	21,538.38	1,208.77	15,441.38	38,206.53	97.63	40,829.07		
4027	Stewart.....	12,361.23	171.95	14,188.10	180.40	64.06	244.46		92
4096	Stevens.....	20,242.48	491.23	20,677.94	1,186.25	3,694.61	31,609.14		
4224	Stewart.....	14,671.63	84.71	25,354.84	1,697.62	4,361.98	47,471.25		
4073	Stockton.....	23,184.45	212.40	30,906.03	54,332.88	52.92	62,721.60	92	
4302	Stoddard.....	25,192.19	223.12	55,826.94	8,335.80	33,740.93	95,423.59		
4006	Stodding.....	14,207.32	153.55	17,003.60	31,361.47	19,149.07	52,087.78		
4240	Stirlingham.....	32,341.22	49.83	19,944.66	52,353.71	17.75	57,263.77	92	
4240	Sturtevant.....	10,894.75	736.94	50,777.90	13,916.83	158.28	64,953.00		
4333	Sumner.....	19,321.19	791.74	26,396.16	48,509.00	130.32	53,224.75		
4273	Swamy.....	32,261.62	425.33	35,265.62	6,049.13	1,446.88	75,448.50	92	
4114	Talbot, J. Fred.....	14,330.80	191.12	27,080.65	3,427.48	38,400.29	68,988.42		
4154	Talbot, J. Fred.....	30,401.66	41.60	42,003.21	10,589.84	933.70	83,972.15		
4142	Tarbell.....	21,209.19	604.75	27,510.55	2,560.81	29,713.28	81,288.58		
4125	Tatall.....	16,086.12	236.08	31,426.11	7,099.50	17,644.63	56,110.24		
4094	Taylor.....					252.26	232.30		92
4026	Terry.....	12,203.67	511.08	10,309.51	1,470.85	12,899.73	37,364.82		
4163	Thatcher.....	13,878.81	493.04	22,817.56	3,232.49	6,559.44	46,982.34		
4192	Thomas.....	20,238.61	214.60	40,346.72	3,865.65	98.05	61,947.63	92	
4305	Thompson.....	16,023.94	564.99	21,653.16	38,268.99	136.84	50,408.29		
4370	Thornlon.....	17,155.49	221.08	46,496.15	100,265.45	3,471.58	161,266.22		
4126	Tilman.....	16,468.96	496.93	26,864.19	13,575.33	801.92	67,206.23		
4272	Tingey.....								

4292	Taney	16,208.33	905.22	23,779.47	40,801.02	1,751.77	5,100.08	47,822.87	92	
4293	Tracy	28,904.25	41,183.21	63,307.85	135,387.31	2,075.77	3,348.24	136,721.32	92	
4338	Trever						894.13	194.13	92	
4339	Tripp						3.29	3.29	92	
4429	Tuckson	20,304.26	475.24	12,180.81	32,960.31	1,887.77	8,597.77	43,455.27	92	
4057	Turner	14,479.01	309.82	27,156.29	41,948.12	1,831.18	24,493.95	43,922.50	92	
4127	Twiggs	22,519.08	332.83	20,163.15	43,015.06	4,232.70	9,161.27	43,496.03		
4144	Uphur	29,726.44	157.51	51,024.73	80,908.68	2,370.37	392.38	83,811.43		
4193	Uphur, Abel P.	15,264.86	148.60	21,940.40	37,353.88	685.80	38,007.68	38,007.68		
4060	Wadsworth	15,377.14	351.29	7,920.33	22,648.86	608.27	18,127.30	42,434.43		
4062	Wainwright	14,560.84	1,135.13	20,134.23	34,860.25	687.73	18,545.88	36,083.86	92	
4034	Walke						423.48	423.48		
4163	Walker	14,011.55	610.85	9,273.95	23,896.45	3,355.79	9,452.53	36,704.78		
4139	Ward	15,610.96	270.26	31,893.43	47,774.70	1,932.70	7,138.67	56,846.07	92	
4030	Warrington						28.08	28.08	92	
4338	Wasmuth						651.39	651.39		
4115	Waters	30,980.64	472.26	37,638.94	69,091.84	12,489.71	1,718.73	83,300.28	92	
4257	Welles	15,299.62	279.10	22,788.00	38,396.72	3,078.77	39.92	41,485.41		
4195	Welborn, C. Wood	14,910.66	163.28	21,490.65	36,594.59	573.31	12,096.67	49,234.60		
4217	Whipple	25,415.60	45,123.87	61,933.04	132,472.51	1,659.63	10,415.40	144,544.51	92	
4075	Wickes	28,372.60	296.96	30,520.69	59,199.65	1,976.91	20.79	61,197.35	92	
4067	Wilkes	13,038.77	521.50	18,951.09	32,511.36	1,294.72	244.88	34,050.96		
4108	Williams	11,336.78	719.68	6,913.10	18,969.56	328.05	77.70	19,375.31		
4244	Williamson	33,323.20	139.89	1,510.02	34,973.11	1,092.03	12,694.63	36,065.79	92	
4053	Winslow	14,026.22	84.32	14,622.44	28,732.98	4,185.62	45,613.13	45,613.13		
4317	Wood	12,126.83	1,719.66	6,026.35	19,872.86	4,221.32	222.19	24,316.37		
4309	Woodbury	15,473.72	516.54	13,797.45	29,787.71	2,905.39	145.37	32,638.47		
4077	Woodley						15.26	15.26	92	
4298	Worden	13,633.94	177.20	27,558.81	41,369.95	1,411.69	7,480.11	50,281.65		
4314	Yarborough	8,911.59	442.44	5,536.70	14,890.73	1,660.81	1,641.85	16,881.77		
4143	Yarnall	30,619.44	84.26	47,106.77	77,810.47	1,868.73	94.77	79,773.97		
4312	Young	13,401.09	531.51	7,714.39	21,646.99	1,229.24	846.42	22,722.65		
4337	Zane	29,274.26	722.42	16,294.39	46,291.07	11,263.81	780.48	58,365.36		
4313	Zollin	26,024.26	420.54	21,862.64	48,317.44	3,666.89	128.33	52,111.66	92	
	Total	5,495,384.52	264,069.52	6,436,532.79	12,199,696.83	1,340,270.32	1,784,846.54	15,321,703.69		

* Credit.

1916.

No.	Name of vessel.	Title C.		Repairs and alterations to ships, including equipage.	Total operating expenses.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.		
		Accrued pay.	Public vouchers (including committed payrolls).						Full commission.	Commission in reserve.	
COAST TUGBOAT VESSELS.											
204	Hathor	\$44,942.15	\$2,163.17	\$46,306.41	\$93,416.73	\$96,894.46	420	Nov. 24, 1902	12		
205	Barry	15,390.00	366.32	15,756.32	74,755.27	88,907.16	420	Nov. 24, 1902	12		
206	Charley	15,387.97	146.95	15,534.92	21,835.63	102,876.22	420	Nov. 24, 1902	12		
207	Dale	46,821.75	291.96	47,113.71	6,264.60	90,011.16	420	Nov. 24, 1902	12		
208	Havill	41,964.28	466.17	42,430.45	77,707.17	110,608.57	420	May 19, 1902	12		
209	Hamlin	32,341.42	313.35	32,654.77	17,738.60	82,310.91	408	Sept. 23, 1903	12		
210	Hull	34,671.43	270.17	34,941.60	64,547.61	82,884.49	408	May 20, 1903	12		
211	Lawrence	28,800.28	211.61	29,011.89	56,883.50	72,226.09	400	Apr. 14, 1903	12		
212	Marshall	32,920.92	392.69	33,313.61	100,855.47	132,344.37	400	Sept. 5, 1903	12		
213	Paul Jones	32,245.52	726.80	32,972.32	15,488.90	111,723.79	420	July 10, 1902	12		
214	Perry	43,675.55	806.80	44,482.35	24,572.81	119,996.12	420	Sept. 4, 1902	12		
215	Stearns	52,354.99	117.15	52,472.14	29,434.94	125,186.85	420	June 21, 1902	12		
216	Trotter	32,134.39	125.00	32,259.39	17,378.71	125,951.45	433	Dec. 17, 1902	12		
217	Whipple	34,931.71	288.01	35,219.72	62,702.96	75,951.45	433	Sept. 1, 1902	12		
218	Whipple	17,680.95	437.92	18,118.87	28,240.34	120,098.93	433	Oct. 21, 1902	12		
219	Whipple	34,536.07	52.70	34,588.77	65,315.63	75,103.54	433	Dec. 31, 1902	12		
Total.		629,692.47	7,214.32	636,906.41	1,257,773.23	1,597,826.56					
Equipage.					280,033.33	384,456.64					
Total.						1,922,283.20					

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
COAST TORPEDO VESSELS— DESTROYERS.											
4001	Bainbridge			\$33,138.84	\$34,084.67	\$120.20	\$2,202.82	\$36,416.69	420	Nov. 24, 1902	
4002	Barry		\$945.83	41,614.20	41,614.20	1,498.50	38.63	43,074.07	420	do.	
4003	Dale		26.00	19,081.96	19,107.96	330.50	31,462.40	50,900.86	420	Oct. 24, 1902	
4005	Decatur		53.07	34,198.14	34,251.21	706.00	1,374.85	36,332.06	420	May 19, 1902	
4006	Hopkins		566.51	2,981.66	3,548.17		514.71	3,033.46	408	Sept. 23, 1903	
4007	Hull		2,617.73	1,230.50	3,848.23		810.35	9,096.37	408	May 20, 1903	
4008	Lawrence			3,294.70	3,294.70	19.25	1,145.96	2,167.99	400	Apr. 14, 1903	
4009	Macdonough (Macdonough)		215.91	2,364.47	2,580.38	19,069.89	3.95	13,185.56	400	Sept. 5, 1903	
4010	Paul Jones		50.95	4,537.36	4,588.31	1,624.61	13.66	2,206.58	420	July 19, 1902	
4011	Perry		97.19	4,587.63	4,684.82	95.00	533.38	4,246.44	420	Sept. 4, 1902	
4012	Preble		923.16	4,231.02	1,952.19	3,286.94	11,681.60	16,030.73	420	June 21, 1902	
4013	Stewart			4,231.02	4,231.02		204.78	4,435.80	420	Dec. 17, 1902	
4014	Truxtun	\$9,306.76		41,315.36	47,622.12		10,220.43	59,365.37	433	Sept. 11, 1903	
4015	Whipple	35,943.09	162.64	12,890.99	49,006.32	1,322.82	2.02	49,333.47	433	Oct. 21, 1902	
4016	Worden	16,228.85		4,755.93	20,985.78	1,071.16	86.48	22,743.42	433	Dec. 31, 1902	
	Total	58,480.30	5,658.99	206,350.79	270,490.08	10,445.67	55,830.66	306,875.07			

1922.
[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
	COAST TORPEDO VESSELS—DESTROYERS.									
4002	Barty.....							\$59.02		1 92
4004	Dale.....							32.74		1 92
4012	Preble.....							18.00		92
	Total.....						109.76	109.76		

150 per cent.

1916.

No.	Name of vessel.	Accrued pay.	Title C.	Stores issued (including provisions and medical stores).	Total operating expenses.	Repairs, and alterations to ships, including equipment.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
										Public voucher (including commuted rations).	Stores issued (including provisions and medical stores).	Full commission.	Commission in reserve.
TORPEDO BOATS.											
719	Bagley.....	\$3,882.20		\$4,573.14	\$8,455.34	\$12,930.57	\$12,930.57	175	Oct. 18, 1901		
720	Ballou.....	2,104.24		2,445.72	4,549.96	1,477.47	9,832.81	280	June 10, 1901		
721	Baldy.....	2,407.21	\$11.00	2,931.11	5,370.12	1,358.55	5,919.51	175	Oct. 21, 1901		12
722	Blackely.....		31.80	1,937.42	1,969.22	414.20	5,784.41	175	Oct. 26, 1904		
723	Dahlgren.....		35.00	219.90	1,957.12	5,172.21	7,130.63	196	Dec. 27, 1904		
724	De Long.....		40.00	260.13	300.13	5,098.53	5,448.66	146	June 16, 1900		12
725	Dupont.....		2,162.42	1,778.04	3,940.46	5,098.53	5,386.66	196	Oct. 27, 1902		
727	Farragut.....	17,492.03	453.25	10,762.71	28,727.97	2,612.24	6,452.70	165	Sept. 23, 1897		
712	Foote.....		471.04	447.66	918.70	1,664.08	30,831.10	279	Mar. 22, 1899		
716	Fox.....		279.00	303.88	582.88	197.21	780.09	134	Aug. 7, 1897		
728	Gadsborough.....		1,562.86	2,072.10	3,634.96	1,360.13	4,995.09	235	July 8, 1899		12
710	Mackenzie.....		538.64	246.43	805.07	1,758.29	2,563.36	65	May 1, 1899		
729	Manley (old).....					118.70	118.70	30	May 11, 1898		12
711	Morris.....		2,073.50	1,358.49	3,431.99	9,022.61	10,381.10	105	May 11, 1898		
713	Rodgers.....		40.00	325.00	365.00	11,014.26	14,480.47	142	Apr. 2, 1898		12
724	Shubrick.....		443.50	272.48	715.98	15,144.24	15,469.24	200	Sept. 21, 1905	12	
719	Somers.....		35.00	266.74	301.74	75.00	730.98	150	Mar. 28, 1898		
723	Thornton.....			545.23	545.23	6,477.40	6,744.14	200	June 9, 1902		
718	Tingey.....					5,631.15	6,176.38	165	Jan. 7, 1904		
Total.....		25,885.68	8,197.89	32,103.98	66,187.46	86,519.96	152,707.42				
Equipment.....							38,176.96				
Total.....							190,884.28				

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.							
COAST TORPEDO BOATS--										
TORPEDO BOATS.										
4301	No. 1		\$30.00	\$30.00	\$19.00	\$119.36	\$149.36	142	Apr. 7, 1897	
4302	No. 2			9.60		381.16	390.76	142	Apr. 21, 1898	
4303	No. 3		\$9.60		5.00	36.62	61.62	163	Sept. 23, 1897	
4304	No. 4					191.33	191.33	146	June 16, 1900	
4305	No. 5					166.85	166.85	279	Mar. 22, 1899	
4306	No. 6		170.10	170.10	946.92		1,157.02	163	May 11, 1898	
4307	No. 7					5.79	4.92	250	Apr. 9, 1908	
4308	No. 8			.87		239.16	244.82	250	June 10, 1901	
4309	No. 9		3.66	3.66				150	Mar. 28, 1898	
4310	No. 10							175	Oct. 18, 1901	
4311	No. 11							175	Oct. 21, 1901	
4312	No. 12	105.40		105.40		87.60	87.60	175	Oct. 21, 1901	
4313	No. 13					167.43	272.83	175	Oct. 21, 1901	
4314	No. 14					7.86	7.86			
4315	No. 15					96.27	96.27			
4316	No. 16					43.09	43.09			
4317	No. 17		.53	.53		.17	.41			
Total		135.40	146.76	322.16	1,010.92	1,611.10	2,844.18			

1922.

[First quarter.]

Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.		
	Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
COA T TORPEDO BOAT—TORPEDO BOAT.										
No. 7.							\$24.00			92

4507

SUBMARINES.

Mr. KELLEY. How many submarines are carried in the 1916 table?

Mr. REED. Forty-one.

Admiral POTTER. Not counting those building.

Mr. KELLEY. I had a notion we had more than that.

Admiral POTTER. There were a good many building. There were 34 building at that time. The total number, built and building, was 75.

Mr. KELLEY. On page 36 of the report for 1916 the number of submarines is given as 76, does that include the number building?

Mr. REED. Yes, sir; that includes those building.

Mr. KELLEY. How many were built?

Mr. REED. There were 42 in commission and 33 building.

Mr. KELLEY. Forty-two in full commission?

Mr. REED. Yes, sir.

Mr. KELLEY. What was the total expense for the maintenance and operation of the submarines in 1916?

Admiral POTTER. In 1916, \$1,576,616.78.

Mr. KELLEY. How many have you carried on your list for 1921?

Mr. REED. There are 126 that were in commission at some time during the year, but not throughout the entire year. There is a number still building.

Mr. KELLEY. This recapitulation gives the number as 97. That is undoubtedly the number being operated, excluding in this recapitulation those that are building. We must be careful not to get the two things confused.

Col. ROOSEVELT. They come and go. One hundred and twenty-six would represent the total number that were operated at any time during the year.

Mr. KELLEY. I want the total expense of operating and maintaining the submarines. I do not care at this time to inquire about the length of time each one was being operated.

Admiral POTTER. There were charges against 126.

Mr. KELLEY. One hundred and twenty-six are included in the table as being operated in whole or in part during the year 1921?

Admiral POTTER. Yes, sir.

Mr. REED. Either being operated or building. Some charges have been placed against them for assembling equipage.

Mr. KELLEY. We should not go into the building here at all.

Mr. REED. That is true.

Mr. KELLEY. What is the total expense for maintenance and operation of submarines for 1921?

Admiral POTTER. \$9,341,953.23.

Mr. KELLEY. That still includes a little amount for building?

Mr. REED. A few thousand dollars for equipage that has been assembled for the ships that are building.

Mr. KELLEY. If it is not a considerable amount, it will not mislead us at all.

Mr. REED. It is around four or five hundred dollars per ship.

Mr. KELLEY. Do you happen to remember just how many submarines we have completed right now? I mean everything that can be used.

Col. ROOSEVELT. That is a figure that I do not carry with me, but there are 81 that I consider of value.

Mr. KELLEY. Whatever number we have in excess of that are practically obsolete?

Col. ROOSEVELT. The ones we have in excess of that number I consider very second rate.

Mr. KELLEY. You would not want to spend much money on them?

Col. ROOSEVELT. No, sir. I think I can give you that figure. One hundred and twenty-six is the total number, and of that number we are going to scrap 18. There are 27 of the second grade that we are not prepared to scrap, because they may be useful for coast-defense purposes, but they would not be useful for long operations. Eighty-one of them are all right.

Mr. KELLEY. I think I asked you to put the tables in at this point.

Admiral POTTER. Yes, sir.

Mr. KELLEY. But I did not ask you to give the submarine figures for the first three months of 1922.

Admiral POTTER. The total expenditures for submarines during the first quarter of 1922 was \$1,585,930.78.

1916.

No.	Name of vessel.	Title C.		Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.		
		Accrued pay.	Public voucher (including commuted rations).						Full commission.	Commission in reserve.	
SUBMARINES.											
300	A-2	\$10,460.58		\$9,791.65	\$3,006.87	\$23,358.10		Jan. 12, 1903	12		
301	A-3	9,506.50	\$7.50	4,571.05	3,546.80	17,431.85		May 26, 1903	12		
302	A-4	9,233.19		6,490.84	2,753.95	18,477.98		May 17, 1903	12		
303	A-5	8,885.20	7.50	14,436.47	5,525.43	28,854.60		May 26, 1903	12		
304	A-6	9,183.27		6,536.35	5,119.62	19,915.41		Sept. 19, 1903	12		
305	A-7	8,590.74		4,652.29	6,053.21	19,246.24		do	12		
306	B-1	9,110.07	14.25	7,368.73	16,493.95	22,227.54		Oct. 18, 1907	12		
307	B-2	11,176.16	6.95	12,536.38	23,719.49	31,696.27		do	12		
308	B-3	12,696.37		6,732.35	19,448.72	25,022.32		Dec. 3, 1907	12		
309	C-1	14,843.16		8,631.01	26,153.01	29,363.54		June 30, 1908	12		
310	C-2	4,658.97	3,804.04	8,526.24	26,153.01	30,114.61		Nov. 23, 1909	12		
311	C-3	16,171.69	4,658.97	7,637.56	29,255.24	36,892.80		do	12		
312	C-4	14,460.71	5,425.99	10,354.26	26,597.65	36,951.91		Feb. 2, 1910	12		
313	C-5	16,090.75	3,782.68	22,270.44	41,670.55	42,713.76		Nov. 23, 1909	12		
314	D-1	19,182.13	3,306.36	13,568.85	32,750.94	46,319.79		do	12		
315	D-2	19,851.75		9,574.80	20,426.64	48,405.71		do	12		
316	D-3	19,145.03		30,052.47	49,107.50	64,157.83		Sept. 8, 1910	12		
317	E-1	23,631.49		15,295.40	38,926.89	100,122.00		Feb. 14, 1912	12		
318	E-2	12,057.20	1,693.03	13,750.23	31,900.99	45,741.22		do	9		
319	F-1	14,625.00	2,661.41	17,298.41	7,703.35	24,999.76		June 19, 1912	9		
320	F-2	13,036.15	2,149.00	15,185.15	7,559.59	22,744.74		June 25, 1912	9		
321	F-3	14,666.77		2,039.92	7,077.88	24,004.57		Aug. 5, 1912	9		
322	F-4	6,242.48	9.00	8,524.26	4,384.62	19,160.38		May 3, 1913	2		
323	G-1	22,380.28		15,152.90	37,533.18	58,380.99		Oct. 28, 1912	12		
324	G-2	27,403.28		14,640.88	42,244.46	64,354.89		Feb. 6, 1915	12		
325	G-3	20,124.84	1,365.00	5,025.50	26,550.29	38,413.40		Mar. 22, 1915	12		
326	H-1	18,466.00		16,296.39	24,753.29	49,049.68		Jan. 22, 1914	12		
327	H-2	20,816.64	15.00	8,842.34	29,674.18	48,512.81		Dec. 1, 1913	12		
328	H-3	17,603.84	50.00	11,603.64	29,468.55	48,532.12		do	12		
329	H-4	20,208.35	50.00	8,321.47	28,571.82	45,015.14		Jan. 16, 1914	12		
330	I-1	23,618.68		18,443.75	47,100.71	65,549.15		Mar. 17, 1914	12		
331	E-2	24,313.68		27,498.83	47,100.71	65,549.15		Jan. 31, 1914	12		
332	E-3	24,572.96		1,034.83	50,608.78	47,684.32		Oct. 30, 1914	12		
333	E-4	26,530.87		6,871.49	32,208.36	50,608.86		Oct. 24, 1914	12		
334	E-5	27,532.51		18,668.26	49,198.77	68,384.44		Nov. 22, 1914	12		
335	E-6	27,337.46		15,837.09	48,173.44	72,934.53		Sept. 9, 1914	12		
336	E-7	25,981.78		5,024.17	46,013.96	71,998.33		Dec. 11, 1914	12		
337	E-8	27,260.94		7,768.96	36,010.89	46,941.59		Dec. 1, 1914	12		

		4,970.80	68.10	1,782.19	6,821.18		6,821.18		Apr. 11, 1916		3
338	L-1								Building		
339	L-2								Apr. 22, 1916		2
340	L-3	4,061.27	53.10	1,483.42	5,602.79	64.25	5,667.04		May 4, 1916		2
341	L-4	3,243.45	50.90	1,442.87	4,737.22		4,737.22		Building		
342	L-5					15.00	15.00		do.		
343	L-6					15.00	15.00		do.		
344	L-7	2,074.52			2,074.52	15.00	2,089.52		do.		
345	L-8					137.86	137.86		do.		
346	L-9								do.		
347	L-10								do.		
348	L-11								do.		
349	M-1					28.07	28.07		do.		
350	Scalpy								do.		
351	N-1		1.90		1.90	15.00	16.90		do.		
352	N-2					15.00	15.00		do.		
353	N-3					15.00	15.00		do.		
354	N-4								do.		
355	N-5								do.		
356	N-6								do.		
357	N-7								do.		
358	Submarine No. 60								do.		
359	Submarine No. 61								do.		
360	O-1								do.		
361	O-2								do.		
362	O-3								do.		
363	O-4								do.		
364	O-5								do.		
365	O-6								do.		
366	O-7								do.		
367	O-8								do.		
368	O-9								do.		
369	O-10								do.		
370	O-11								do.		
371	O-12								do.		
372	O-13								do.		
373	O-14								do.		
374	O-15								do.		
375	O-16								do.		
Total		674,760.19	22,710.24	409,100.21	1,906,570.64	470,046.14	1,576,616.78				
Equipment							394,154.30				
Total							1,970,770.98				

1921.

No.	Name of vessel.	Accrued pay.	Miscellaneous. Stores issued, expense, in- cluding pro- visions and medical stores.	Title C.	Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and opera- tion.	Ton- nage.	Date of first commission.	Months in com- mission.
SUBMARINES.											
5003	A-2							\$384.78			
5004	A-3		\$2,940.43		\$2,940.43	\$30.34		2,970.77	106	May 28, 1903	12
5005	A-4						297.90	297.90	106	Jan. 17, 1903	
5006	A-5		2,746.11		2,746.11	994.41	457.47	4,197.99	106	May 28, 1903	12
5007	A-6						414.59	414.59	106	Sept. 19, 1903	
5008	A-7						468.33	468.33	106	do.	
5009	A-1	\$10,106.81	\$116.28	11,729.74	21,882.83	17,334.01	5,714.68	44,931.52	145	Oct. 18, 1903	12
5010	B-2			1.61	1.61		654.85	654.85	145	Oct. 18, 1907	
5011	B-1		5,595.73		5,595.73	278.10	116.90	5,990.73	145	Dec. 3, 1907	12
5012	B-3						1,412.53	1,412.53	239	June 30, 1908	
5013	C-1							21.75	240	Nov. 23, 1909	
5014	C-2					21.75		148.66	240	do.	
5015	C-4						1,913.67	17,104.10	288	do.	12
5016	D-1	7,978.31	6,529.23		14,507.54	682.89	1,898.88	16,998.17	288	do.	12
5017	D-2	9,723.79	4,949.12		14,672.91	434.38	1,888.88	27,447.97	287	Sept. 8, 1910	12
5018	D-3	20,025.84	5,612.65		25,638.49	1,781.72	27.76	27,447.97	287	Feb. 14, 1912	12
5019	E-1	27,633.82	10,824.31		38,458.13	28,430.23	2,341.90	69,230.26	287	do.	12
5020	E-2	12,046.03	13,700.58		27,396.61	25,357.17	3,230.33	55,984.11	287	do.	12
5021	F-1			1.61	1.61			1.61			
5022	F-2	31,934.66	3.20	10,302.91	42,240.77	5,834.04	89,779.54	137,854.35	330	June 25, 1912	12
5023	F-3	30,750.31		9,396.67	40,146.98	596.04	103,879.06	144,622.68	330	Aug. 25, 1912	12
5024	G-1	3,012.27		39.74	3,052.01	39.74	18,590.35	21,602.62	400	Oct. 28, 1912	
5025	G-2			97.81	97.81			97.81	375	Feb. 6, 1915	
5026	G-3	9,870.08	47.10	4,042.80	13,959.98	654.30	519.20	15,133.48	393	Mar. 22, 1915	10
5027	G-4			22.20	22.20						
5028	H-1	3,168.98		1.61	3,170.59	128.52		3,299.11	358	Dec. 1, 1913	
5029	H-2	36,749.22		51,901.79	128.52	1,051.35	35,663.58	88,616.72	358	do.	12
5030	H-3	49,685.59	208.40	14,943.77	65,549.60	497.90	24,608.90	90,656.40	358	Jan. 14, 1914	12
5031	H-4	48,812.21	13.10	15,141.53	63,953.74	1,998.39	34,122.08	100,074.21	357	Oct. 24, 1918	12
5032	H-5	34,092.33	14,333.22	48,445.55	82,438.77	1,600.52	38,630.40	87,236.47	357	Sept. 30, 1918	12
5033	H-6	43,248.13	15,078.64	58,326.77	113,653.42	414.33	37,093.56	95,854.66	357	Sept. 9, 1918	12
5034	H-7	49,990.52	168.61	13,888.07	64,036.20	429.08	30,778.38	95,264.66	357	Oct. 24, 1918	12
5035	H-8	39,197.77	113.00	14,928.99	70,094.91	109.08	21,193.69	75,541.63	357	Nov. 8, 1919	12
5036	H-9	55,035.02		15,059.99	70,094.91	8.78	17,083.11	87,166.80	357	Nov. 25, 1919	12
5037	K-1	22,778.87		7,243.77	30,022.64	2,596.96	98,211.78	121,831.38	392	Mar. 17, 1914	12
5038	K-2	21,297.83		9,705.84	31,003.67	1,167.92	47,319.41	79,491.00	392	Jan. 31, 1914	12
5039	K-3	19,380.40		8,525.70	28,906.90	2,522.18	66,084.84	97,492.92	392	Oct. 21, 1914	12
5040	K-4	19,439.87		8,643.12	28,082.99	2,522.18	63,644.82	92,051.54	392	Oct. 21, 1914	12
5041	K-5	23,888.03		8,466.94	32,354.97	2,540.16	111,197.02	146,400.05	392	Aug. 22, 1914	12

5067	K-4	19,293.65	30,312.00	2,180.79	90,550.93	123,033.69	392	Sept.	9,1914
5068	K-5	20,667.41	29,546.15	4,051.13	27,068.21	57,063.97	392	Dec.	1,1918
5069	K-6	20,946.75	30,940.87	1,012.49	33,632.01	64,063.37	392	Dec.	1,1918
5070	L-1	13,08.51	36,751.98	25,338.13	1,673.95	63,761.67	450	Sept.	21,1916
5071	L-2	10,991.33	20,647.40	24,387.19	2,893.37	43,467.96	450	Sept.	21,1916
5072	L-3	13,142.17	13,356.62	24,401.61	14,073.57	64,016.84	450	Apr.	23,1916
5073	L-4	13,422.17	25,707.28	25,260.76	2,777.00	54,745.04	450	May	4,1916
5074	L-5	47,739.86	67,775.21	1,730.16	30,149.87	99,634.94	451	Feb.	7,1918
5075	L-6	44,323.68	65,941.83	5,064.30	81,260.99	139,897.39	451	Dec.	7,1917
5076	L-7	43,400.74	62,860.72	1,642.53	75,274.14	139,897.39	451	Dec.	7,1917
5077	L-8	39,065.17	67,800.15	1,149.22	9,018.40	67,527.77	451	Aug.	30,1917
5078	L-9	12,456.34	25,360.00	24,844.10	18,518.94	68,729.04	450	Aug.	4,1916
5079	L-10	15,253.65	38,735.73	33,776.96	1,596.52	63,728.21	450	Aug.	2,1915
5080	L-11	13,962.10	35,628.20	13,967.11	1,322.87	50,919.18	450	Aug.	2,1915
5081	M-1	19,750.60	33,965.42	49,208.68	3,804.51	86,978.61	488	Feb.	16,1918
5082	N-1	19,774.62	29,512.92	6,123.76	1,285.97	36,922.65	347	Sept.	26,1917
5083	N-2	16,917.70	29,943.73	4,613.94	12,211.41	46,069.08	347	do.	do.
5084	N-3	16,965.23	27,963.04	5,069.46	1,830.44	34,962.94	347	do.	do.
5085	N-4	16,213.17	18,807.14	3,858.16	38,906.87	61,572.17	385	June	15,1918
5086	N-5	12,862.19	16,206.31	8,911.39	5,968.06	70,205.78	385	June	14,1918
5087	N-6	15,345.22	23,211.59	3,472.96	51,818.99	78,563.53	385	Aug.	9,1918
5088	N-7	13,157.72	23,567.05	18,613.70	766.45	41,414.32	385	June	15,1918
5089	O-1	25,241.00	46,530.88	10,414.07	69,048.80	118,094.24	520	Oct.	19,1918
5090	O-2	30,371.73	56,187.89	14,226.50	5,965.92	66,786.30	520	Oct.	19,1918
5091	O-3	38,464.50	31,509.40	62,161.33	9,052.58	127,401.80	520	June	13,1918
5092	O-4	18,673.92	23,238.20	33,891.39	179,920.30	211,205.29	520	May	28,1918
5093	O-5	30,655.07	59,751.99	3,891.39	7,165.54	100,808.92	520	June	8,1918
5094	O-6	24,518.35	42,411.50	1,356.43	4,682.91	49,450.84	520	June	12,1918
5095	O-7	27,198.37	17,380.86	1,372.08	7,099.13	53,504.04	520	July	4,1918
5096	O-8	28,319.96	44,718.41	4,124.09	10,017.47	59,859.97	520	July	11,1918
5097	O-9	27,995.20	15,852.83	8,738.22	4,830.44	57,394.29	520	July	27,1918
5098	O-10	29,022.52	19,356.93	1,767.56	10,845.27	61,064.68	520	Oct.	17,1918
5099	O-11	36,790.36	40,959.30	3,166.46	10,410.63	81,359.00	486	Oct.	19,1918
5100	O-12	34,410.44	29,442.87	63,853.31	17.11	72,920.61	486	do.	do.
5101	O-13	34,410.44	26,516.92	3,805.31	17.11	75,298.23	486	Nov.	27,1918
5102	O-14	37,373.72	31,805.73	2,337.16	5.70	79,713.00	486	Oct.	1,1918
5103	O-15	41,622.63	42,894.40	2,372.87	9.04	81,270.32	486	Aug.	27,1918
5104	R-1	36,283.37	79,263.77	14,357.82	71,810.01	153,937.62	569	Dec.	16,1918
5105	R-2	46,418.23	81,805.36	67,751.79	27,371.91	103,021.26	569	Jan.	24,1919
5106	R-3	48,635.54	67,850.36	7,818.99	29,416.74	131,136.99	569	Apr.	17,1919
5107	R-4	79,342.41	96,461.43	5,261.82	29,238.41	94,144.77	569	Mar.	28,1919
5108	R-5	40,551.85	58,478.79	6,427.57	28,781.15	99,021.35	569	Apr.	15,1919
5109	R-6	40,169.13	58,123.01	12,117.19	27,194.04	113,935.40	569	May	1,1919
5110	R-7	47,015.06	65,892.33	10,876.03	28,449.06	104,025.23	569	June	21,1919
5111	R-8	46,596.55	65,278.10	10,298.07	27,035.60	93,348.78	569	July	30,1919
5112	R-9	45,285.85	65,066.43	1,246.75	28,835.76	106,582.54	569	Aug.	20,1919
5113	R-10	37,290.44	49,561.17	13,662.12	27,008.53	106,582.54	569	Sept.	5,1919
5114	R-11	45,752.11	75,894.03	898.78	12,909.84	96,002.75	569	Oct.	17,1919
5115	R-12	47,736.17	75,894.03	1,100.23	10,923.80	86,074.03	569	Nov.	2,1919
5116	R-13	45,165.78	74,050.00	3,787.20	11,550.78	83,873.18	569	Dec.	24,1919
5117	R-14	45,621.53	98,535.20	1,100.23	9,161.85	86,603.25	569		
5118		44,970.37	73,220.46	4,220.94					

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications.	Stores issued, including provisions and medical stores.							
SUBMARINES continued.											
5002	R 15	\$60,483.95		\$19,211.11	\$79,705.06	\$8,712.91	\$22,562.00	\$93,324.72	500	July 27, 1918	12
5003	R 16	54,724.21		16,411.97	72,099.30	7,390.06	33,642.25	113,130.61	500	Aug. 5, 1918	12
5004	R 17	40,721.77	\$953.12	14,701.27	55,423.04	2,541.57	13,143.50	71,108.11	500	Aug. 17, 1918	12
5005	R 18	44,041.59		14,710.47	58,806.06	3,377.93	28,832.48	91,017.39	500	Sept. 11, 1918	12
5006	R 19	40,272.30		14,577.87	54,850.17	6,047.75	26,432.48	87,350.40	500	Oct. 7, 1918	12
5007	R 20	39,407.36		13,340.48	52,747.84	1,827.65	30,723.39	84,486.88	500	Oct. 26, 1918	12
5008	R 21	42,686.97	480.45	25,115.70	68,283.02	15,217.69	30,710.70	94,221.41	485	June 17, 1919	12
5009	R 22	35,144.31	3,138.91	25,711.79	62,335.01	13,841.74	1,078.56	97,255.31	485	Aug. 1, 1919	12
5100	R 23	38,242.45	4,384.54	13,857.08	52,638.47	7,287.00	58.16	90,033.63	485	Aug. 23, 1919	12
5101	R 24	39,490.98	3,061.57	29,022.30	71,572.93	14,842.91	142.66	96,558.50	485	Oct. 27, 1919	12
5102	R 25	35,241.39	6,560.19	16,612.53	58,423.11	14,893.63	55.44	95,372.18	485	....do....	12
5103	R 26	37,430.54	9,182.83	21,040.73	67,663.10	7,757.72	55.44	95,372.18	485	....do....	12
5104	R 27	37,273.69	6,433.62	21,040.73	67,747.07	7,922.92	55.44	95,372.18	485	....do....	12
5105	R 1	60,997.44	1,586.75	29,031.36	92,745.55	63,808.60	2,253.31	153,650.42	485	Sept. 3, 1919	12
5106	R 2	76,968.24	250.20	26,367.26	103,485.70	69,268.55	21,649.92	194,404.17	485	May 25, 1920	12
5107	R 3	61,100.77	3,204.32	19,676.46	83,981.55	21,896.75	145,071.52	250,946.82	485	June 30, 1919	12
5108	R 4	54,253.51	91.20	16,964.47	70,941.18	23,115.19	24,831.20	118,867.57	485	Nov. 19, 1919	12
5109	R 5	18,108.24	184.20	9,549.23	27,841.67	31,163.35	546.74	59,551.76	485	Mar. 6, 1920	12
5110	R 6	51,433.29	21.08	25,479.99	76,934.36	33,243.04	7,458.12	117,539.56	485	May 17, 1920	12
5111	R 7	53,625.71	80.32	26,530.84	80,246.01	30,304.36	8,458.12	111,008.49	485	July 1, 1920	9
5112	R 8	37,341.03		21,076.26	58,417.29	47,268.05	8,897.98	114,465.32	485	Oct. 1, 1920	9
5113	R 9	18,279.16	106.20	8,624.02	27,008.37	44,498.70	8,92.06	71,591.73	485	Feb. 21, 1921	4
5114	R 10					50.48	144.88	88.40			
5115	R 11					50.45	144.88	88.45			
5116	R 12					50.46	474.26	583.75			
5117	R 13					50.46	144.88	88.45			
5118	R 14					40,066.47	1,840.58	80,473.51		Feb. 11, 1921	4
5119	R 15	18,060.32	213.55	11,193.59	29,476.46	71,761.13	8,301.44	100,000.26		Jan. 15, 1921	6
5120	R 16	20,244.12	207.60	8,894.97	29,088.69	78,120.61	1,819.07	118,622.09		Dec. 17, 1920	6
5121	R 17	25,516.20	144.50	11,921.53	37,592.41	38,448.71	4,189.75	68,463.16		Mar. 1, 1921	
5122	R 18	15,407.64	195.96	12,231.19	27,624.79	38,448.71	2,960.00	2,968.16			
5123	R 17			18.16	18.16						
5124	R 19			1,550.83	1,550.83	270.48		1,821.31			
5125	R 20			1,612.46	1,612.46			1,612.46			
5126	R 21					491.98		491.98			
5127	R 22					491.98		491.98			
5128	R 23					485.23		485.23			
5129	R 24					485.23		485.23			
5130	R 25					485.23		485.23			

[illegible]

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SUBMARINES.											
5004	A-3.					\$80.99		\$80.99		1 25	67
5005	A-3.					3.90		3.90		1 25	92
5006	A-7.										
5010	B-1.	\$3,724.03	\$204.36		\$3,932.39	31.65	\$72.08	3,964.04			
5012	B-3.					29.07		29.07			
5017	D-2.	736.54	72.00	\$1,183.41	1,991.95	123.43		2,115.38		1 25	67
5018	D-2.	1,154.73	153.91	1,299.93	2,610.57	61.66		2,651.95		1 15	77
5019	D-3.	2,280.86		1,773.43	4,054.31	116.40	1,20.28	4,074.59		1 15	
5024	E-1.	660.62		1,797.62	2,478.04	1.85	1,906.82	2,480.39		1 15	77
5025	F-2.	1,423.68	11.80	1,446.61	2,874.96	58.55	16.65	2,930.16		1 92	
5026	F-2.	1,218.85	46.00	3,718.12	14,965.97	146.85	489.33	15,622.15		1 92	
5027	F-3.	10,171.14		3,181.47	13,352.61	856.84	16.17	14,228.62		1 92	92
5028	G-1.	606.07			606.07		338.78	944.85			92
5029	G-2.						17.31	17.31			92
5031	G-3.		6.81	1,162.87	1,169.68	126.35	41.06	1,337.09			
5032	H-2.	8,349.91		2,949.94	11,299.85	192.54	288.31	11,750.70			
5033	H-3.	7,224.47		3,360.81	10,585.28	434.84	985.68	12,005.80			
5147	H-4.	10,451.85		3,207.28	13,659.13	4.27	579.00	14,242.40			
5148	H-5.	7,728.65		3,111.29	10,839.94	53.30	435.00	11,328.24			
5149	H-6.	9,472.16	46.00	3,258.74	12,776.90	65.35	403.03	13,247.28			
5150	H-7.	8,515.54	33.00	3,493.21	12,041.75	123.76	429.61	12,595.12			
5151	H-8.	8,532.40		2,829.96	11,362.36	120.26	405.25	11,887.87			
5152	H-9.	9,525.22		2,719.33	12,244.55	101.64	418.97	12,765.20			
5033	K-1.	6,151.72		2,587.81	8,739.53	9.80	119.36	8,868.69			
5034	K-2.	6,543.96		3,584.25	10,128.23	27.81	2,242.43	12,398.47			
5035	K-3.	8,566.40		2,461.63	11,028.03	1.35	4,453.97	15,485.35			
5036	K-4.	8,497.25		3,032.95	11,530.20	11.15	664.78	12,195.13			
5037	K-5.	8,737.39		2,806.54	11,543.93	41.55	840.46	12,425.94			
5038	K-6.	9,456.45		4,202.43	13,648.88	14.35	1,291.07	15,154.30			
5039	K-7.	8,173.30		3,510.23	11,683.53	3,819.85	72.76	15,576.14			
5040	K-8.	7,991.00		3,177.29	11,168.29	2.60	192.20	11,363.69		1 92	
5041	L-1.	1,660.19	36.60	830.21	2,450.00	1.35	106.85	2,561.20		1 92	
5041	L-2.	1,635.87	16.05	641.09	1,292.71	1.35	607.81	1,901.87			

5042	I-3	1,071.81	44.33	438.11	1,554.25	1.35	144.82	1,700.42	192
5043	I-3	1,143.22	50.24	513.66	1,707.12	1.35	252.34	1,960.81	192
5044	I-6	7,161.42		2,012.34	9,173.76	36.33	13,753.22	22,963.33	
5045	I-6	7,239.65		3,461.76	10,701.75	63.35	13,661.30	24,432.40	
5046	I-6	9,889.36	6.34	5,534.28	15,423.64	152.96	15,592.11	16,168.71	
5048	I-6	7,379.06		5,560.26	7,939.32	266.50	18,898.36	27,094.18	
5049	I-6	4,455.48		4,325.06	1,323.60	1.35	874.16	2,199.11	192
5050	I-10	4,325.06	40.31	395.40	4,763.20	1.35	4,295.94	4,468.61	192
5051	I-10	187.07	47.59	187.07	1,128.76	1.35	13,843.56	12,713.45	192
5057	M-1	1,824.38	15.22	778.25	2,617.98	378.70	270.90	2,837.46	
5053	N-2	5,437.75		3,437.75	9,205.73	287.92	2,695.92	9,493.64	192
5054	N-2	6,557.94	2,700.00	5,625.74	14,863.68	703.06	2,695.92	18,559.60	192
5055	N-3	7,728.19	565.68	4,860.54	13,154.45	542.44	1,775.55	15,472.44	192
5056	N-3	7,466.52		5,398.24	12,859.76	285.35	1,425.10	15,570.21	192
5057	N-3	5,545.46		7,084.05	12,609.51	1,693.41	1,135.81	15,408.76	192
5058	N-3	6,840.17		7,568.39	14,208.98	1,693.41	1,350.67	15,998.64	192
5059	N-7	5,439.13	15.00	7,032.92	10,776.67	199.83	2,859.57	13,928.17	192
5062	O-1	8,604.78		6,802.78	15,618.69	835.83	2,859.57	19,384.17	
5063	O-2	8,223.33		7,874.08	14,098.46	1,692.05	1,202.61	16,294.12	
5064	O-3	9,077.48		6,189.52	15,267.00	1,318.70	3,090.19	17,772.60	
5065	O-4	8,223.33		6,189.52	15,457.43	638.73	2,682.62	16,684.98	
5067	O-6	8,971.89		6,849.63	16,821.52	686.07	1,831.42	16,039.78	
5068	O-7	8,287.95	4,800.00	6,831.55	15,149.20	2,861.70	1,782.32	21,486.69	
5069	O-8	8,284.54		6,071.76	14,356.30	3,210.73	1,943.61	19,000.32	
5070	O-9	6,353.79		6,151.07	12,708.86	1,370.93	1,533.43	17,266.20	
5071	O-10	8,214.21		6,445.89	14,660.10	4,398.89	510.32	17,364.51	
5072	O-11	8,508.79		5,965.76	14,507.55	206.67		19,416.76	192
5073	O-12	7,106.44		11,914.43	19,022.87	135.85	400.42	19,230.54	192
5074	O-13	9,102.32		6,757.44	15,856.76	135.85		16,398.03	192
5075	O-14	8,360.09		6,259.32	13,619.41	4,992.60		16,612.01	192
5076	O-15	7,931.87		19,566.55	27,498.42	185.69	139.00	27,783.11	192
5077	O-16	7,635.06		6,451.41	14,086.47	226.58	507.00	14,820.05	
5078	R-1	8,774.35	8.50	3,012.46	11,786.81	1,947.77	* 51.18	13,683.40	
5080	R-2	8,704.67	13.00	3,962.56	12,666.73	4,42.63	607.10	13,260.20	
5081	R-3	8,652.04		3,497.71	12,162.75	3,777.58	962.75	16,903.05	
5082	R-5	8,466.75		4,236.46	12,898.21	576.18	14,317.70	14,317.70	
5083	R-6	8,513.95		2,845.58	11,359.53	3,172.55	845.31	15,375.68	
5084	R-7	7,946.33		2,645.97	10,595.30	15,673.61	843.60	26,268.91	
5085	R-7	7,997.47		5,268.21	13,265.68	1,285.14	5,033.19	19,614.01	
5086	R-8	8,331.58		1,664.60	9,996.18	1,152.87	982.35	10,501.40	
5087	R-9	9,788.00		5,204.79	14,990.79	27,917.16	1,337.61	44,245.66	
5088	R-10	7,961.32		2,456.21	10,417.53	5.36	661.25	11,615.14	
5089	R-11	8,449.11		1,979.16	10,328.27	643.84	175.29	11,147.40	
5090	R-12	9,247.33		2,142.21	11,389.54	763.20	19.57	12,172.31	
5091	R-13	8,714.07		2,180.38	10,894.45	623.84	181.14	11,696.43	
5092	R-14	7,937.97		1,728.38	9,667.35	500.95	244.85	10,413.15	
5093	R-15	19,463.47		4,132.77	23,596.24	19.21	2,332.65	26,175.02	
5093	R-16	7,514.52		2,045.71	9,560.23		76.35	9,637.79	

* 18 reserve, 74 ordinary.

* 50 per cent.

* Reserve.

* Credit.

* All submarines in full commission 92 days unless otherwise noted.

* Ordinary.

1922—(continued).

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
SUBMARINES—continued.										
5044	R-17	\$9,351.83		\$2,044.59	\$11,406.42	\$267.50	\$176.58	\$11,850.48		
5045	R-18	9,290.16		2,107.04	11,398.10	278.83	634.08	12,311.01		
5046	R-19	8,728.12		2,226.14	10,954.26	180.83	42.32	11,185.41		
5047	R-20	8,307.90		1,821.41	10,130.31	568.36	4,976.55	15,674.22		
5048	R-21	8,166.83		19,484.84	27,651.67	3.68		27,675.35		
5049	R-22	5,334.12	\$242.16	12,819.07	14,393.35	1.35		45,678.08		
5100	R-23	6,369.27		16,242.01	22,611.28	2,056.35	27,279.36	14,907.63		
5101	R-24	6,453.71		16,368.42	22,822.13	1,401.37		22,962.80		
5102	R-25	6,463.58		5,623.54	12,087.12	33.40		12,120.52		
5103	R-26	6,913.03		7,099.01	13,922.31	124.97	30.79	14,078.07		
5104	R-27	6,666.62		6,830.04	13,516.66	273.80		13,790.55		
5105	R-28	13,989.87	212.40	10,915.54	25,097.81	453.60	3,578.68	29,130.09		* 92
5106	R-2	13,598.76	20.16	32,899.13	32,899.13	35,373.72	691.71	68,944.56		
5107	R-3	14,246.64		19,292.21	18,633.92	1,018.76	9,494.38	29,147.04		
5108	R-4	4,387.28		4,387.28	18,633.92	1,018.76		20,226.85		
5109	R-5	14,170.99		5,467.96	19,638.95	1,260.54	27.38	20,226.85		
5110	R-6					435.79	435.79			
5111	R-7	14,540.37		7,021.71	21,571.08	1,678.10	148.35	23,397.53		
5112	R-8	14,441.78		6,442.60	21,294.38	1,521.42	156.80	22,965.60		
5113	R-9	13,796.03		6,716.87	20,512.92	1,143.56	200.75	21,860.23		
5114	R-10	12,181.18		8,935.18	21,136.36	372.79	27.00	21,536.15		
5115	R-11					17.24		17.24		92
5116	R-12					6,656.00		6,656.00		92
5117	R-13					383.52		21,970.23		
5118	R-14	11,392.35		10,194.36	21,586.71	4.99	4.99	21,970.23		* 92
5119	R-15	12,427.33		8,936.25	21,363.58	* 153.78		21,314.79		* 92
5120	R-16	13,107.27		9,225.62	22,332.89	111.81	* 128.00	22,316.70		
5121	R-17	12,602.85		9,044.83	21,647.68	25,635.73	865.51	48,138.92		
5122	R-18			* 15.16	* 14.16	25.00	25.00	25.00		
5123	R-19		210.00	1,340.24	6,231.87	1,391.25	25.00	7,948.12	38	
5124	R-20	4,673.63				25.00	25.00	25.00		
5125	R-21					25.00	25.00	25.00		
5126	R-22		210.00	1,702.69	6,579.09	1,391.58	25.00	7,965.67	38	
5127	R-23	4,066.40				25.00	25.00	25.00		
5128	R-24					25.00	25.00	25.00		
5129	R-25					25.00	25.00	25.00		
5130	R-26					25.00	25.00	25.00		

SUBMARINE CHASERS.

Mr. KELLEY. Now we come to the submarine chasers. How many of those have you on your list for 1921?

Mr. REED. The statement here shows 83 in commission during a part of the year.

Mr. KELLEY. During 1921?

Mr. REED. Yes; although there are others on which charges have been made, either delayed bills coming in for prior years or some miscellaneous work on them.

Mr. KELLEY. How much did we spend for the maintenance and operation of the submarine chasers in 1921?

Admiral POTTER. We spent \$1,531,686.35.

Mr. KELLEY. In the table for 1922 how many are included?

Admiral POTTER. From a hasty glance it looks to be 132.

Mr. KELLEY. That would be more than you had last year.

Mr. REED. Some of those are not in commission.

Admiral POTTER. These are those against which charges have been made.

Mr. KELLEY. What is the total for the quarter?

Admiral POTTER. The total is \$203,945.27.

Mr. KELLEY. There are a few of these that seem to have quite large sums set off against them in your report for 1921. Let us look into that list a little and see whether we can ascertain why those sums are so large. These boats cost, as I recollect, about \$70,000.

Mr. REED. They range from \$40,000 to about \$110,000; some of the larger ones cost about \$110,000, I think, including the engines.

Mr. KELLEY. On page 185 of Ships' Data the contract price of a subchaser is put down at \$70,900, and they run along at about that, running up to as high as \$74,000. That is according to page 185 of Ships' Data.

Admiral POTTER. For 1921?

Mr. KELLEY. Yes. Take No. 96. It seems that a ship costing \$70,000 is a pretty expensive thing if it costs \$57,000 to run it a year, although I am not much of a ship operator.

Admiral POTTER. The big item of that is pay, \$22,000.

Mr. KELLEY. How does that come about?

Admiral POTTER. I do not know, sir. Admiral Coontz will have to tell you about that.

Mr. REED. It would depend on the duty performed.

Mr. KELLEY. You will notice that No. 159 cost \$23,115 and the pay there is very small. But that is quite a large sum of money for those little boats.

Admiral POTTER. They evidently did a lot of cruising for some reason.

Mr. KELLEY. Who controls these boats?

Admiral POTTER. They are under the general direction of the Chief of Operations.

Mr. KELLEY. How can he tell how much they are sailing?

Admiral POTTER. They are directly under the respective district commandants.

Cel. ROOSEVELT. Perhaps I can give you something there which will help.

Mr. KELLEY. Possibly we had better leave it until Admiral Coontz is here, so that we will not go over it twice. The Secretary, yourself, and Admiral Coontz are responsible for the running of these boats and possibly that is the time to take it up rather than with the financiers; these men are the financiers and bookkeepers, and good ones. There is another one, *No. 273*, and \$19,383 is quite a large sum for that little boat.

Admiral POTTER. The same answer must be made as to that; it depends on its duty.

Mr. KELLEY. Here is another one, *No. 277*, \$63,636.

Mr. REED. In that case there was \$46,000 for repairs and alterations.

Mr. KELLEY. Why would they repair a little boat like that and put that much money on it, a boat that cost only \$70,000? Who determines whether a boat shall be repaired or not?

Admiral POTTER. Well, the final authority, of course, would be the Navy Department itself; the estimates are made locally by the local construction officers and by the local engineering officers under the supervision of the commandant of the district. They make a report.

Mr. KELLEY. Here are numbers *277* and *278*, one costing \$36,636 and the other \$67,142; the repairs on one amounted to \$46,333 and the repairs on the other amounted to \$47,158. You do not know why those repairs were made on these little boats?

Admiral POTTER. No, sir.

Mr. KELLEY. Here is one, *No. 298*.

Admiral POTTER. \$71,023.45, of which \$44,236.03 is represented by repairs.

Mr. KELLEY. And *No. 299*?

Admiral POTTER. \$53,152, and repairs, \$31,487.

Mr. KELLEY. And *No. 305*?

Col. Roosevelt: I do not know what the repairs were in 1921, but they are out of commission now.

Mr. KELLEY. Are they all out now?

Col. ROOSEVELT. *298* and *299* are out.

Mr. KELLEY. After putting that much money on them you ought to let them run awhile.

Col. ROOSEVELT. I do not know about that; I can not tell.

Mr. KELLEY. How much were the repairs on *No. 306*?

Admiral POTTER. \$39,837.

Mr. OLIVER. Will your questions elicit the same information for the fiscal year 1922?

Mr. KELLEY. Yes; the table will follow right along, but I was curious about these amounts, and I am putting them into the record so that they will be directly called to somebody's attention. Here is *No. 338*.

Admiral POTTER. The total for *No. 338* is \$54,211; the repairs, however, are very small, \$310.74. Most of that amount is represented in stores issued.

Col. ROOSEVELT. She is at Constantinople; she is for sale but we can not find anybody to buy her.

Mr. REED. It may be that she also carries the pay accounts of certain personnel that may be ashore, which would make that amount appear quite large.

Mr. KELLEY. That must be so with so large an amount for pay, \$20,000. They do not carry over 20 men, do they?

Mr. REED. They carry a very small crew, as a rule.

Admiral POTTER. That is substantiated by the stores issued, including provisions, which you see are \$30,438. So undoubtedly they are carrying a lot of accounts.

Mr. KELLEY. No. 444.

Admiral POTTER. The total amount is \$47,880.

Mr. KELLEY. That is for 1921?

Admiral POTTER. Yes, sir; and the repairs are \$2,346. The large item is stores, including provisions, \$34,008.

Col. ROOSEVELT. She is working down at Santo Domingo.

Mr. KELLEY. I am not sure that "working" is the right word for these boats. Give us the total for the first three months of 1922 as to some of these boats where the amounts run so high.

Admiral POTTER. The total for the first three months of 1922 is \$203,945.27.

Mr. KELLEY. If you multiply that by four?

Admiral POTTER. That is \$812,000.

Mr. KELLEY. Considering the reduced price of gasoline it looks as though they used as much as last year.

Col. ROOSEVELT. But they are going down.

Mr. KELLEY. Since the first quarter?

Col. ROOSEVELT. Very much. You see, many of these will have gone out of commission; we are trying to sell a lot of them and we are only planning to have 49 at this moment.

Admiral POTTER. Do you want the amounts as to some of the vessels you have mentioned?

Mr. KELLEY. Yes. Let us take No. 96.

Admiral POTTER. \$8,639 for the first three months of 1922.

Col. ROOSEVELT. She is at Constantinople and she is for sale, but we can not get any bids for her.

Mr. KELLEY. That is a pretty big upkeep for a ship that cost only \$70,000.

Col. ROOSEVELT. It is, but, of course, it is——

Mr. KELLEY (interposing). In a year's time, you see, it eats up half its value.

Col. ROOSEVELT. But it is a question of substituting something else for her, and we have practically gotten now where we will take her out.

Mr. KELLEY. In a good many ways it is like Sherman's answer with reference to the resumption of specie payments.

Col. ROOSEVELT. What was that?

Mr. KELLEY. The way to resume was to resume, and the way to take these out is to just take them out.

Col. ROOSEVELT. That will be done as fast as possible.

Mr. KELLEY. At this point put in the full table.

Admiral POTTER. Very well.

1931.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
SUBMARINE CHASERS.											
5501	No. 1.			\$33.01	\$33.01	\$8.28	\$33.05	\$96.06	77	Oct. 8, 1917	
5502	No. 2.			632.66	632.66	14.84	321.70	962.73	77	Jan. 8, 1918	
5503	No. 3.			977.79	977.79	6.76	193.23	1,185.86	77	Oct. 9, 1917	
5504	No. 4.			6.76	6.76			6.76	77	Feb. 19, 1918	
5505	No. 6.			1.25	1.25		165.94	167.19	77	Aug. 19, 1917	
5506	No. 8.			4.66	4.66			4.66			
5507	No. 16.			2.76	2.76			2.76			
5508	No. 17.			14.00	14.00			14.00			
5509	No. 18.		\$58.62	39.76	39.76			86.62	77	No. 8, 1917	
5510	No. 19.							53.76	77	do.	
5511	No. 20.			29.20	29.20		70.30	84.30	77	do.	
5512	No. 21.							43.20	77	Oct. 18, 1917	
5513	No. 22.							14.00	77	Oct. 19, 1917	
5514	No. 23.							14.00	77	Oct. 16, 1917	
5515	No. 24.							14.00	77	do.	
5516	No. 25.							12.25	77	Oct. 22, 1917	
5517	No. 26.			1,795.49	1,795.49			14.00	77	Oct. 16, 1917	
5518	No. 27.			363.09	363.09			1,809.49	77	Oct. 19, 1917	
5519	No. 28.			1,994.72	1,994.72			377.09	77	Oct. 19, 1917	
5520	No. 29.			21.08	21.08			2,008.72	77	Nov. 8, 1917	
5521	No. 30.			21.51	21.51			48.74	77	Jan. 9, 1918	
5522	No. 31.			28.48	28.48			35.51	77	Jan. 23, 1918	
5523	No. 32.			197.74	197.74			63.33	77	do.	
5524	No. 33.			184.30	184.30			780.62	77	do.	
5525	No. 34.		13.44	346.67	350.43			403.30	77	do.	
5526	No. 35.		3.76	51.47	51.47			211.87	77	Mar. 2, 1918	
5527	No. 36.		40.00	490.56	490.56			211.87	77	Mar. 2, 1918	
5528	No. 37.			23.22	23.22			1,252.71	77	Mar. 2, 1918	
5529	No. 38.			3.11	3.11			37.22	77	Mar. 2, 1918	
5530	No. 39.			18.32	18.32			17.11	77	Mar. 2, 1918	
5531	No. 40.			60.02	60.02			48.32	77	Mar. 2, 1918	
5532	No. 41.			648.73	648.73			1,607.85	77	Mar. 2, 1918	
5533	No. 42.			172.71	172.71			1,738.31	77	Mar. 2, 1918	
5534	No. 43.			190.72	190.72			1,585.15	77	Mar. 10, 1918	
5535	No. 44.			56.89	56.89			682.91	77	Mar. 10, 1918	
5536	No. 45.			375.29	375.29			204.83	77	Mar. 27, 1918	
5537	No. 46.		5.54	211.21	211.21			383.18	77	do.	
5538	No. 47.			595.85	595.85			211.21	17	Dec. 6, 1917	
5539	No. 48.			22.32	22.32			596.72	17	Apr. 23, 1918	
5540	No. 49.							41.82	77	do.	
5541	No. 50.										
5542	No. 51.										
5543	No. 52.										
5544	No. 53.										
5545	No. 54.										
5546	No. 55.										
5547	No. 56.										
5548	No. 57.										
5549	No. 58.										
5550	No. 59.										
5551	No. 50.										
5552	No. 51.										
5553	No. 52.										

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and rationed stores.	Stores issued, including provisions and medical stores.							
SUBMARINE CHASERS—contd.											
5553	No. 53.			\$78.08	\$78.08	\$90.00	\$10,714.41	\$10,882.49	77	Apr. 30, 1918	
5554	No. 54.			1,976.08	1,976.08			1,976.08	77	May 11, 1918	
5555	No. 55.			35.42	35.42			35.42	77	Apr. 30, 1918	
5556	No. 56.	\$603.31		517.51	1,450.82	6.54	41.04	1,468.40	77	May 6, 1918	12
5557	No. 57.			714.12	714.12	19.06	1,339.96	2,073.13	77	do.	
5558	No. 58.			31.17	31.17			31.17	77	do.	
5559	No. 59.		30.84				557.64	568.48	77	May 11, 1918	
5560	No. 60.			34.00	34.00			34.00	77	do.	
5561	No. 61.		231.40		231.40			231.40	77	May 23, 1918	
5562	No. 62.	\$10,551.91		7,701.11	18,253.02	200.82		18,453.84	77	May 21, 1918	12
5563	No. 63.		221.34	2,527.78	2,749.12	7,922.51	6,697.61	17,366.24	77	May 23, 1918	6
5564	No. 64.		170.00	4,068.91	4,238.91	7,918.74	4,173.15	16,330.80	77	do.	
5565	No. 65.		29.65	14.11	43.76			43.76	77		
5566	No. 66.			14.11	14.11			14.11	77		
5567	No. 67.			14.11	14.11			14.11	77		
5568	No. 68.			14.77	14.77			14.77	77		
5569	No. 69.	177.60	38.00	649.78	905.38	69.73	1,847.79	2,063.44	77	May 15, 1918	
5570	No. 70.			14.76	14.76			14.76	77	Feb. 16, 1918	
5571	No. 71.	3,008.87		3,892.97	6,901.84	253.04	189.76	7,346.64	77	do.	
5572	No. 72.	13,245.29	40.50	12,161.64	26,147.43	623.16		26,770.59	77	Mar. 28, 1918	12
5573	No. 73.			98.70	98.70		1,065.72	1,164.42	77	Mar. 21, 1918	
5574	No. 74.			1,460.98	1,460.98	63.00	312.44	1,720.42	77	Mar. 20, 1918	
5575	No. 75.			13.50	13.50			13.50	77	do.	9
5576	No. 76.			13.50	13.50			13.50	77		
5577	No. 77.		21.70	169.29	191.09		514.42	705.51	77	Dec. 5, 1917	
5578	No. 78.			4.66	4.66			4.66	77	Dec. 14, 1917	
5579	No. 79.	3.40		3.73	7.13		1,042.19	1,046.32	77	Dec. 5, 1917	
5580	No. 80.	.60		2.77	3.37		927.56	930.93	77	Dec. 18, 1917	
5581	No. 81.			1.62	1.62			1.62	77	do.	
5583	No. 83.		100.11		133.62		1,854.95	1,968.57	77	Feb. 21, 1918	
5584	No. 84.			27.57	27.57		26.06	52.63	77	do.	
5585	No. 85.			19.84	19.84		24	20.08	77	do.	
5586	No. 86.			27.57	27.57			27.57	77	do.	
5587	No. 87.			34.48	34.48		20.00	54.48	77	do.	
5588	No. 88.			165.28	165.28	130.48		295.76	77	Mar. 1, 1918	
5589	No. 89.			7.75	7.75			7.75	77	do.	
5590	No. 90.	23.05		3,246.92	3,271.97	104.50	80.63	3,457.10	77	Nov. 14, 1917	

5592	No. 92	172.63	172.63	371.87	47.52	592.02	77	Dec. 5, 1917
5592	No. 92	13.12	13.12	106.40		119.52	77	do.
5592	No. 92	2,913.31	2,913.31		688.80	3,602.11	77	do.
5594	No. 94	31.43	31.43			31.43	77	Dec. 24, 1917
5595	No. 95	642.25	647.04		94.55	741.59	77	do.
5596	No. 96	34,538.06	56,971.50	149.66	2.79	57,123.06	77	Dec. 8, 1917
5597	No. 97	33.02	33.02			33.02	77	do.
5598	No. 98	74.70	74.70			74.70	77	Dec. 8, 1918
5599	No. 99	41.67	41.67			41.67	77	Feb. 2, 1918
5600	No. 100	8,319.12	8,319.12		15.30	8,334.42	77	Mar. 2, 1918
5601	No. 101	38.95	38.95	168.90	141.21	182.88	77	Mar. 12, 1918
5602	No. 102	222.04	222.04	113.06	96.60	8,594.62	77	Mar. 12, 1918
5603	No. 103	35.26	35.26	23.75		2,377.06	77	do.
5604	No. 104	4,818.59	7,196.13	106.40	2,124.66	31.66	77	Mar. 12, 1918
5605	No. 105	128.99	128.99	1,239.94	2,442.85	10,878.92	77	Mar. 12, 1918
5606	No. 106	2,783.44	2,783.44	38.00	22.32	190.31	77	do.
5607	No. 107				517.29	3,300.73	77	Dec. 31, 1917
5608	No. 108				9.00		77	Jan. 19, 1918
5609	No. 109				6.40		77	Feb. 12, 1918
5610	No. 110	135.60	135.27			6.40	77	do.
5611	No. 111	54.33	54.33		813.29	951.56	77	Mar. 30, 1918
5612	No. 112	1,039.15	1,039.15	13.24	47.45	115.02	77	do.
5613	No. 113	1,180.04	1,180.04	1,165.43		2,204.59	77	May 22, 1918
5614	No. 114	1,961.58	1,961.58	90.00	01	1,279.05	77	Apr. 3, 1919
5615	No. 115	249.84	249.84	80.00	139.78	2,190.36	77	Mar. 23, 1918
5616	No. 116	171.90	171.90	208.85	01	418.70	77	May 3, 1918
5617	No. 117			363.36	01	171.91	77	Nov. 14, 1917
5618	No. 118	36	36		306.96	363.37	77	Nov. 9, 1917
5619	No. 119	8,306.45	8,334.65		306.96	307.34	77	Nov. 26, 1917
5620	No. 120	594.75	594.75	754.96	1,698.67	10,788.28	77	Nov. 19, 1917
5621	No. 121	41.64	41.64			594.75	77	Nov. 4, 1917
5622	No. 122	77.47	77.47		23.49		77	Oct. 16, 1917
5623	No. 123	2.58	2.58	13.93		80.69	77	Oct. 31, 1917
5624	No. 124	10.85	10.85	371.87		91.40	77	Nov. 5, 1917
5625	No. 125	387.11	387.11			374.45	77	Dec. 11, 1917
5626	No. 126	1.92	1.92	20.13	47.68	10.85	77	Dec. 27, 1917
5627	No. 127	8.16	8.16			454.92	77	Nov. 24, 1918
5628	No. 128	151.14	151.14	44.00		1.92	77	Jan. 15, 1918
5629	No. 129	284.12	284.12		188.69	62.16	77	Jan. 15, 1918
5631	No. 131	48.72	48.72	32.80	38.61	338.73	77	Jan. 17, 1918
5632	No. 132	56.16	56.16	13.72	19.44	300.63	77	Jan. 19, 1918
5633	No. 133	1,954.63	1,954.63	24.03		100.96	77	Feb. 2, 1918
5634	No. 134	7,566.27	7,566.27	13.72		66.88	77	Mar. 13, 1918
5635	No. 135	2,860.05	2,860.05	127.29		1,978.66	77	do.
5636	No. 136	1,810.94	1,810.94	71.47		7,566.27	77	do.
5637	No. 137			496.88	187.14	2,987.34	77	do.
5638	No. 138					2,072.37	77	do.
5639	No. 139			66.04		66.04	77	Jan. 24, 1918
5640	No. 140					436.88	77	Apr. 8, 1918
5641	No. 141				41.09	41.69	77	
5642	No. 142				114.63	114.63	77	
					6.87	6.87		

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including committed rations.	Stores issued, including provisions and medical stores.							
SUBMARINE CHASERS—contd.											
5643	No. 143		\$330.00	\$945.91	\$1,315.91	\$5,596.16	\$64.78	\$9,946.95	77	Nov. 20, 1918	11
5644	No. 144			6,500.90	6,500.90	272.36	465.17	7,238.33	77	Mar. 30, 1918	7
5645	No. 145	\$831.60	146.00	4,738.52	4,738.12	366.64	2,203.71	7,306.47	77	Mar. 13, 1918	10
5646	No. 146			10.87	10.87			10.87			
5647	No. 147			2,622.22	2,622.22			2,622.22	77	Dec. 13, 1917	12
5648	No. 148			68.52	68.52		21.60	91.12	77	do.	
5649	No. 149			1,042.81	1,042.81	1.23	34.56	1,078.60	77	Nov. 30, 1917	
5650	No. 150			1,136.53	1,136.53		30.24	1,166.77	77	Jan. 15, 1918	
5651	No. 151			36.57	36.57		38.21	74.78	77	do.	
5652	No. 152			8.62	8.62			8.62	77	Dec. 24, 1917	
5653	No. 153			224.05	224.05			224.05	77	Feb. 17, 1918	
5654	No. 154		1,198.00	10,187.13	11,385.13	1,105.49	811.90	13,302.42	77	Feb. 4, 1918	12
5655	No. 155			154.39	154.39		869.22	1,023.61	77	Feb. 15, 1918	
5656	No. 156			287.55	287.55		7,086.78	7,374.33	77	Apr. 11, 1918	
5657	No. 157			1,747.18	1,747.18	319.10		2,066.28	77	Jan. 8, 1918	
5658	No. 158		2.95	3,662.67	3,665.62	5,443.12	231.70	9,340.44	77	June 7, 1918	
5659	No. 159	2,713.30	47.47	17,993.33	20,754.10	1,007.02	1,354.67	23,115.79	77	Jan. 15, 1918	12
5660	No. 160					27.56		27.56			
5661	No. 161		31.43	376.79	408.22		776.71	1,184.93	77	Mar. 23, 1918	
5662	No. 162		41.14	6,886.13	6,926.27	465.88	312.00	7,704.15	77	do.	12
5663	No. 163		43.75		43.75	108.40		150.15	77	do.	
5664	No. 164					12.39		12.39	77	Apr. 8, 1918	
5665	No. 165				9.12			9.12	77	Oct. 31, 1917	10
5666	No. 166			3,666.31	3,666.31		6.72	3,673.03	77	Dec. 24, 1917	
5667	No. 167			141.20	141.20		1,557.65	1,698.85	77	Apr. 8, 1918	
5668	No. 168			94.68	94.68			94.68	77	Apr. 26, 1918	
5669	No. 169		74.42	11,723.96	11,738.01	378.11	469.11	12,176.12	77	May 6, 1918	
5670	No. 170		2.17	60.51	62.68		476.68	677.99	77	Apr. 27, 1918	
5671	No. 171			201.31	201.31			1.35	77	do.	
5672	No. 172			1.35	1.35			1,293.24	77	Aug. 27, 1918	
5673	No. 173			1,293.24	1,293.24			10,313.75	77	do.	
5674	No. 174			1,293.85	1,293.85			797.96	77	do.	
5675	No. 175			617.27	617.27		180.60	1,053.79	77	do.	
5676	No. 176			1,053.79	1,053.79			61.25	77	May 7, 1918	
5677	No. 177			611.31	611.31			4,459.06	77	Mar. 13, 1918	
5678	No. 178			2,383.07	2,383.07			2,075.99	77	do.	
5679	No. 179			15,126.89	17,738.08	1,240.96		22,566.58	77	do.	12
5680	No. 180					1,505.98	6,270.63	12,590.89	77	Mar. 21, 1918	9
5681	No. 181										

[illegible]

1921—Continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and medical stores.							
SUBMARINE CHASERS—Contd.										
5762	No. 252		\$182.69	\$182.69	\$26.88	\$2,900.73	\$3,110.30	77	Apr. 16, 1917	12
5763	No. 253		9,633.21	9,637.30	1,302.25	1,177.27	12,166.82	77	Mar. 7, 1918	12
5764	No. 254	\$34.09	164.34	164.34	8.74	1,483.91	2,042.73	77	Nov. 15, 1917	
5765	No. 255	3.25	1,957.99	1,957.99	84.74		2,042.73	77	Nov. 19, 1917	
5766	No. 256		387.50	387.50	84.74	26.22	498.46	77	do	
5767	No. 257		24.64	24.64	84.74		109.38	77	Apr. 16, 1918	
5768	No. 258		1,003.75	1,003.75	76.00		1,081.75	77	Nov. 28, 1917	
5769	No. 259		296.75	296.75	8.84	29.21	334.70	77	Dec. 15, 1917	
5770	No. 260		30.33	30.33	8.74	31.19	70.26	77	Jan. 12, 1918	
5771	No. 261				8.74		8.74	77	Feb. 9, 1918	
5772	No. 262		20.50	20.50	84.74		105.24	77	do	
5773	No. 263				101.86		101.86	77	do	
5774	No. 264	391.48	708.80	1,100.28	298.26	1,992.68	3,361.22	77	Apr. 16, 1917	12
5775	No. 265				8.74	14.30	23.04	77	Feb. 12, 1918	
5776	No. 266				8.74	15.60	24.34	77	Apr. 1, 1918	
5777	No. 267				8.74	83.00	91.74	77	Apr. 6, 1918	
5778	No. 268				8.74	67.11	74.25	77	Apr. 1, 1918	
5779	No. 269						1,330.69	77	do	
5780	No. 270	\$9,707.55	70.00	1,121.95	928.05	1,710.96	27,359.62	77	do	12
5781	No. 271	1.43		24,720.61	8.74	104.42	256.56	77	do	3
5782	No. 272		10.05	188.37	8.74	347.37	554.53	77	Mar. 7, 1918	
5783	No. 273	18.50		4,962.24	8.74	3,757.81	19,363.06	77	Mar. 27, 1918	
5784	No. 274			26.51	2,536.24		26.51	77	Mar. 30, 1918	
5785	No. 275		1,314.64	1,150.45			2,079.40	77	Mar. 27, 1918	
5786	No. 276			856.20		214.31	2,079.40	77	Apr. 9, 1918	
5787	No. 277	505.29		9,187.99	993.25	450.23	63,636.85	77	do	12
5788	No. 278	1,352.88		16,760.10	3,224.33	47,198.47	67,142.90	77	Mar. 20, 1918	12
5789	No. 279	57.00		477.00			477.00	77	Apr. 18, 1918	
5790	No. 280			17.37			17.37	77	Apr. 19, 1918	
5791	No. 281		6.57	681.29	8.00		689.29	77	Apr. 22, 1918	
5792	No. 282			674.72			674.72	77	do	
5793	No. 283			28,181.01	550.95		28,731.96	77	do	12
5794	No. 284	464.39		11,250.23	1,023.57		12,878.80	77	do	12
5795	No. 285	857.92		60.00			60.00	77	May 6, 1918	
5796	No. 286			7,137.96	2,284.77		9,422.73	77	do	13
5797	No. 287			646.99			1,066.93	77	June 19, 1918	
5798	No. 288			678.26			2,171.05	77	do	
5799	No. 289			694.29			2,171.05	77	do	
5800	No. 290			77.19	274.80	940.63	1,264.62	77	May 27, 1918	
5801	No. 291				30.00		2,684.82	77		

5792	No. 292	20.50	51.25	71.75	68.68	140.43	77	do.	11
5793	No. 293		363.50	363.50	91.44	683.51	77	May 13, 1918	11
5794	No. 294	468.77	3,917.94	19,315.16	1,467.51	21,336.30	77	Mar. 25, 1918	12
5795	No. 295	199.55	3,196.88	15,946.91	6,235.21	22,180.35	77	Apr. 13, 1918	12
5796	No. 296		23.38	23.38	400.95	424.33	77	do.	12
5797	No. 297		13,795.25	26,280.21	577.21	632.35	77	do.	12
5798	No. 298	7.80	10,274.07	20,616.23	1,049.47	53,152.78	77	Apr. 25, 1918	12
5799	No. 299		105.30	105.30	600.46	705.76	77	Apr. 6, 1918	12
5800	No. 300	115.72	357.22	1,126.54	2,609.42	13,794.57	77	Apr. 29, 1918	12
5801	No. 301	394.67	122.37	15,717.04	58.62	28,656.63	77	Jan. 11, 1918	12
5802	No. 302		6,873.25	15,736.94	429.47	18,699.08	77	May 14, 1918	12
5803	No. 303		8,336.80	18,352.65	187.15	18,699.08	77	May 4, 1918	9
5804	No. 304	118.95	3,690.07	13,431.26	6.44	65,664.31	77	May 11, 1919	12
5805	No. 305	3.93	13,331.62	23,335.63	30,837.49	65,664.31	77	Feb. 17, 1918	12
5806	No. 306	35.40	13,450.69	28,598.75	200.21	28,532.77	77	May 11, 1919	12
5807	No. 307	41.00	13,450.69	28,598.75	200.21	28,532.77	77	May 11, 1919	12
5808	No. 308	25.07	13,450.69	28,598.75	200.21	28,532.77	77	May 11, 1919	12
5809	No. 309	397.42	13,450.69	28,598.75	200.21	28,532.77	77	May 11, 1919	12
5810	No. 310	660.29	4,150.24	15,145.03	1,175.65	16,580.86	77	May 18, 1918	7
5811	No. 311	102.00	15.57	15.57	1,175.65	16,580.86	77	do.	7
5812	No. 312	564.42	12,499.14	13,173.64	659.86	18,197.21	77	do.	12
5813	No. 313	674.50	22.18	22.18	106.40	107.06	77	Dec. 1, 1918	12
5814	No. 314		1,136.38	1,136.38	382.14	1,584.65	77	Jan. 8, 1918	12
5815	No. 315		790.44	790.44	371.87	1,160.31	77	Mar. 7, 1918	12
5816	No. 316	93.97	40.95	134.92	1,047.86	1,584.65	77	Dec. 5, 1918	12
5817	No. 317		259.71	259.71	7.28	2,107.27	77	Dec. 13, 1918	12
5818	No. 318		26.49	26.49	6.68	26.49	77	Nov. 14, 1918	12
5819	No. 319		1,947.08	1,947.08	3,374.47	3,374.47	77	do.	12
5820	No. 320	1,080.17	81.14	81.14	376.47	457.61	77	Oct. 20, 1917	12
5821	No. 321		6,421.23	7,501.40	654.38	8,602.83	77	do.	12
5822	No. 322		1,263.40	1,263.40	624.06	1,928.76	77	Feb. 18, 1918	12
5823	No. 323		1,628.80	1,628.80	47.09	1,847.42	77	Mar. 13, 1918	12
5824	No. 324		1,902.71	1,902.71	198.47	1,102.18	77	do.	12
5825	No. 325		1,555.13	1,555.13	288.70	1,823.83	77	Jan. 26, 1918	12
5826	No. 326		46.80	46.80	46.80	46.80	77	Mar. 4, 1918	12
5827	No. 327		1,407.63	1,407.63	320.60	1,973.14	77	Apr. 18, 1918	12
5828	No. 328		51.43	51.43	807.12	858.55	77	May 6, 1918	12
5829	No. 329	20,905.73	30,438.50	52,942.41	310.74	54,211.09	77	Dec. 24, 1917	12
5830	No. 330		11.39	11.39	480.66	26,918.32	77	Feb. 16, 1918	12
5831	No. 331	11,217.07	13,362.93	24,580.00	1,857.66	26,918.32	77	Mar. 22, 1918	12
5832	No. 332		14,045.05	25,093.37	560.05	26,850.16	77	Mar. 15, 1918	12
5833	No. 333		338.27	338.27	114.67	452.94	77	Mar. 15, 1918	12
5834	No. 334		38.05	38.05	38.05	38.05	77	do.	12
5835	No. 335		125.43	125.43	64.45	196.88	77	Mar. 23, 1918	12
5836	No. 336		129.57	129.57	804.49	984.06	77	Mar. 25, 1918	12
5837	No. 337		47.28	47.28	365.24	412.52	77	Nov. 14, 1917	9
5838	No. 338		1,000.80	1,000.80	672.21	1,673.01	77	Jan. 8, 1918	12
5839	No. 339	45.07	50.89	50.89	45.07	65.86	77	Mar. 2, 1918	12
5840	No. 340				106.40	212.07	77		

No.	No. 435.	No. 436.	No. 437.	No. 438.	No. 439.	No. 440.	No. 441.	No. 442.	No. 443.	No. 444.	Total.
5935
5936
5939
5940
5941
5942
5943
5944
	Submarine chaser, out of com- mission.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total.	289,885.81	22,544.48	713,494.65	1,025,924.94	99,569.96	406,191.45	1,531,686.35	.....	.....	.....

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alteration to ships, including equipage.	Total maintenance and operation.	Status, ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SUBMARINE CHASERS.											
5501	No. 1.			\$28.56	\$28.56			\$28.56			92
5508	No. 8.				7.20			7.20			92
5540	No. 40.						\$60.14	60.14			92
5541	No. 41.		\$7.20				445.38	445.38			92
5551	No. 51.						3.00	3.00			92
5553	No. 53.		3.00		3.00						92
5557	No. 57.			7.32	7.32			7.32			92
5558	No. 58.			51.04	51.04						92
5559	No. 59.			89.20	89.20						92
5562	No. 62.	\$1,676.30		1,872.03	5,548.33			5,548.33			92
5563	No. 63.	183.81		4,066.63	4,240.44	\$244.19	27.65	4,512.28			92
5564	No. 64.	112.50		4,054.75	4,167.25	263.27	74.38	4,504.90			92
5568	No. 68.					\$4.50		\$4.50			92
5569	No. 69.	556.60	401.00	439.50	1,397.30	129.00		1,526.30			92
5570	No. 70.					4.50		4.50			92
5571	No. 71.		2.81	3,201.39	3,204.20	6.00	259.08	3,559.28			92
5572	No. 72.					\$4.50		\$4.50			92
5573	No. 73.					\$4.50		\$4.50			92

¹ In commission for 98 days except otherwise noted.² Credit.

[illegible]

3 Credit.

1923 - Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
SUBMARINE CHASERS contd.										
5830	No. 330			\$2,193.85	\$2,193.85	\$673.90	\$1,306.94	\$4,124.68		Days out of commission.
5838	No. 338	\$3,732.46		5,598.45	9,337.74	50.19		9,416.64		
5840	No. 340	2,780.21	\$8.83	1,019.54	4,699.75		181.35	4,881.10		
5841	No. 341	2,690.79		1,518.00	4,178.88	145.00	248.83	4,372.71		
5845	No. 345					1.00		1.00		92
5847	No. 347						7.04	7.04		
5848	No. 348			16.12	16.12			16.12		
5849	No. 349		2,389.61	2,948.20	5,347.81	1,281.87	706.08	7,335.76		
5851	No. 412	1,530.68	118.82	7,312.80	8,964.39	320.17	94.85	9,339.41		92
5851	No. 413			76.70	76.70		(Cr. 239.97)	(Cr. 163.27)		
5851	No. 419		166.50	2,903.50	3,070.00	589.43		3,659.43		
5852	No. 424	332.18		332.18	332.18			332.18		
5853	No. 425			6.88	6.88	136.36		143.24		92
5853	No. 426						2,119.81	2,119.81		
5859	No. 429						1.42	1.42		
5862	No. 432	2,284.27	30.00	953.67	3,277.94	244.80	812.39	4,335.13		
5869	No. 439			1,720.94	1,720.94	194.61		1,915.55		92
5890	No. 440			172.90	172.90		617.23	790.13		
5941	No. 441			285.20	285.20		11.49	296.69		
5943	No. 443	3,974.07		74.92	4,048.99			4,048.99		
5944	No. 444	4,209.04		49.60	4,258.64			4,258.64		
Total		56,402.08	7,418.48	85,663.33	149,483.89	20,444.64	34,016.74	203,945.77		

EAGLE BOATS.

Mr. KELLEY. Now we go to the Eagle boats. How much did the Eagle boats cost for upkeep in 1921?

Admiral POTTER. In 1921, for 60 Eagle boats, \$4,280,343.92.

Mr. KELLEY. There are 60 in all?

Admiral POTTER. Yes, sir.

Mr. KELLEY. What is the total for the first three months of 1922?

Admiral POTTER. \$1,012,848.11.

Mr. KELLEY. And if you multiply that by 4?

Admiral POTTER. That would be \$4,049,000.

Mr. KELLEY. That would indicate a larger use of the Eagle boats than last year, with the reduced price of fuel.

Admiral POTTER. Assuming that was done for the rest of the year.

Mr. KELLEY. Assuming that during the rest of the year they went forward at the same rate.

Admiral POTTER. Yes.

Col. ROOSEVELT. But there is not the same number of these boats at this date; we either sell them or put them out of commission.

Mr. KELLEY. I notice one you have here, *No. 33*. Is that one that is used as a sort of lodging house?

Mr. REED. Yes, sir; she is at the submarine base at Hampton Roads.

Mr. KELLEY. And the same thing is true of the others, where the sums seem so excessive?

Admiral POTTER. Yes. *No. 31* is used at Coco Solo, and another one, *No. 17*, is at Hampton Roads, and the same thing applies.

Mr. KELLEY. Take *No. 11*; that is in ordinary service, is it?

Col. ROOSEVELT. *No. 11* is in the same situation as *No. 31*; she is on duty with the submarines at San Pedro.

Mr. KELLEY. What is she doing there?

Col. ROOSEVELT. She is a sort of a houseboat, as I recall.

Admiral POTTER. Probably she carries the accounts of some others.

Mr. KELLEY. It is not so much greater than some of the others; the pay is only \$13,000.

Mr. REED. In the case of *No. 17*, *No. 31*, and *No. 33*, they are the station ships; they are assigned to the stations, and the accounts of the personnel are carried.

Mr. KELLEY. At Coco Solo and New London?

Mr. REED. Yes, sir; but these others only carry the accounts of the crews themselves.

Mr. KELLEY. The accounts of these particular ships?

Mr. REED. Yes, sir.

Col. ROOSEVELT. I do not know how the accounts are kept but she is doing some work.

Mr. REED. At Coco Solo—*No. 31*—the amount, including pay, is \$126,000, while the others run \$9,000, \$12,000, and \$13,000.

Mr. KELLEY. \$39,033.29 appears to be the total maintenance of *No. 46*.

Col. ROOSEVELT. She is the group flagship at Portsmouth.

Mr. KELLEY. The total spent on these Eagle boats in the first quarter was \$1,012,848.11?

Admiral POTTER. Yes, sir.

Mr. KELLEY. At this point put in these tables.

Admiral POTTER. Very well.

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.								
EAGLE BOATS.											
5301		\$15,116.27	\$273.28	\$33,118.31	\$332.28	\$773.26	\$34,723.85	500	Oct. 28, 1918	12	
5302			27.10	1,773.70	6.82	855.12	2,622.90	500	Nov. 7, 1918	12	
5303			22.10	1,230.52	210.08	729.19	2,260.09	500	Nov. 11, 1918	12	
5304		42,570.26	2,754.33	64,293.00	1,562.61		65,855.61	500	Nov. 14, 1918	12	
5305			16.03	16,796.39	1,068.84		18,186.67	500	Nov. 19, 1918	12	
5306		28,390.89	40.00	96,216.15	3,977.00	1,215.41	115,482.47	500	Nov. 21, 1918	12	
5307		39,680.51	108.54	102,700.81	1,735.66	12,280.32	114,862.47	500	Nov. 24, 1918	12	
5308		38,667.87	3,313.06	108,708.68	1,387.85	6,943.41	117,039.94	500	Nov. 31, 1918	12	
5309		6,544.82	46.00	95,896.74	4,565.73	8,461.23	104,868.50	500	Nov. 24, 1918	12	
5310		39,559.11	34.88	106,896.41	1,612.16	3,777.24	116,919.38	500	Oct. 31, 1919	11	
5311		46,437.09	517.50	83,673.55	2,294.48	9,972.77	95,153.48	500	May 29, 1919	12	
5312		34,661.27	1,191.13	126,210.43	2,294.48	11,521.08	144,191.59	500	Nov. 6, 1919	12	
5313			8,351.31	6,897.27	789.68	15,686.08	144,191.59	500	Apr. 2, 1919	12	
5314		61,062.35	25.00	126,210.43	2,294.48	15,686.08	144,191.59	500	June 17, 1919	12	
5315			316,020.89	37,731.30	7.66	11,928.57	52,447.02	500	June 1, 1919	12	
5316				37,022.83	10,933.45	18,451.13	11,865.55	500	June 3, 1919	12	
5317				1,998.29	3,512.07	491.63	382,852.55	500	July 5, 1919	12	
5318				38,060.04	3,512.07	11,522.69	53,315.76	500	Aug. 7, 1919	12	
5319				77.77	815.84	2.20	53,315.76	500	June 25, 1919	12	
5320				77.77	7.66		818.81				
5321				77.77	7.66		6.89				
5322		16,894.17	139.15	45,305.26	2,130.33	3,592.41	53,568.52				
5323				45,305.26	2,130.33	8,132.87	55,568.46	500	June 19, 1919	12	
5324				1,528.55	81.04	2,296.04	3,908.23	500	July 12, 1919	12	
5325		31,517.49	120.70	38,228.13	10,434.92	65,953.79	117,623.84	500	June 30, 1919	5	
5326				9,145.39	960.41	11,171.80	21,307.57	500	July 30, 1919	12	
5327				4,898.75	999.38	9,392.95	15,251.08	500	Oct. 1, 1919	12	
5328				1,165.73	6.10	1,185.57	15,251.08	500	July 4, 1919	12	
5329				59,638.92	2,318.56	9,998.74	72,671.56	500	July 28, 1919	12	
5330			715.34	60,354.26	2,318.56	9,998.74	72,671.56	500	Aug. 20, 1919	12	
5331		445,821.92	3,900.65	479,278.10	189,806.98	2,246.78	671,333.86	500	Aug. 14, 1919	12	
5332		50,686.90	25,242.95	80,999.27	1,137.08	5,377.52	90,233.87	500	Sept. 4, 1919	12	
5333		29,040.40	970.22	60,861.46	12,446.61	4,691.46	83,103.31	500	do.	12	
5334		31,240.67	415.58	35,174.90	13,062.97	7,934.75	61,102.93	500	Sept. 3, 1919	12	
5335		45,136.13	746.22	91,838.64	1,679.84	14,166.22	107,663.20	500	Aug. 22, 1919	12	
5336		17,928.09	30,002.65	45,348.12	53,219.68	15,477.92	117,043.63	500	Aug. 20, 1919	12	
5337		36,414.39	11,301.77	46,716.16	1,795.81	486.70	48,908.67	500	Sept. 30, 1919	13	

5328	No. 38	43,915.75	821.42	50,771.88	95,509.05	3,111.07	15,598.09	114,218.21	500	July 30, 1919	12
5329	No. 39	5,468.50	725.40	20,343.11	26,837.01	2,116.24	19,820.23	48,473.48	500	Sept. 20, 1919	12
5330	No. 40	72,930.60	165.60	53,303.73	126,200.93	1,958.00	7,354.53	135,712.46	500	Oct. 1, 1919	12
5341	No. 41			3,549.35	3,549.35	86.34	68.03	3,736.69	500	Sept. 28, 1919	12
5342	No. 42		292.40	17,292.11	17,584.51	720.85	5,554.85	25,340.21	500	Oct. 2, 1919	12
5343	No. 43	32,285.59	529.30	20,924.18	57,747.05	1,601.87	37,124.21	95,891.67	500	Oct. 3, 1919	12
5344	No. 44			4,616.66	7,510.66	1,784.04	7,180.71	16,495.43	500	Oct. 4, 1919	12
5345	No. 45		115.50	4,038.00	7,213.90	264.24	2,392.50	4,570.54	500	Oct. 4, 1919	12
5346	No. 46	100,398.71	486.83	60,658.07	161,556.21	286.00	2,882.59	164,747.86	500	Oct. 4, 1919	12
5347	No. 47	38,413.78	6,776.42	47,732.50	92,952.70	1,946.23	3,533.59	104,484.54	500	Oct. 4, 1919	12
5348	No. 48	6,558.57		3,239.39	15,797.96	2,111.99	3,768.81	19,684.76	500	Oct. 8, 1919	12
5349	No. 49	41,471.09	672.27	43,074.23	86,417.61	127.06	4,776.40	95,035.41	500	Oct. 10, 1919	12
5350	No. 50			1,464.24	1,464.24	1,442.37	9,842.87	2,434.17	500	Oct. 6, 1919	12
5351	No. 51		132.40	13,800.50	15,832.90	1,442.37	9,110.33	2,435.60	500	Oct. 2, 1919	12
5352	No. 52		550.00	3,694.48	3,694.48	171.04	1,823.09	7,079.51	500	Oct. 10, 1919	12
5353	No. 53	31,412.61		36,532.39	68,495.00	1,736.14	15,868.19	86,134.33	500	Oct. 20, 1919	12
5354	No. 54	12,895.09	84.40	12,332.34	25,311.83	765.26	9,803.31	35,953.40	500	Oct. 10, 1919	12
5355	No. 55			5,740.05	5,740.05	378.22	3,332.36	9,470.63	500	Oct. 10, 1919	12
5356	No. 56		5.00	13,081.29	13,086.29	184.27	2,048.19	15,318.75	500	Oct. 26, 1919	12
5357	No. 57	32,328.67	4,177.47	37,659.62	74,164.06	1,375.98	17,812.18	93,382.22	500	Oct. 15, 1919	12
5358	No. 58	59,540.79	39.59	73,656.43	113,236.81	839.36	8,233.31	122,329.48	500	Oct. 20, 1919	12
5359	No. 59	1,669.96		16,150.05	17,820.01	2,671.88	28,723.91	49,217.50	500	Sept. 19, 1919	12
5360	No. 60	52,600.79	692.32	21,343.67	74,636.78	3,770.12	15,189.03	93,995.93	500	Oct. 27, 1919	12
4788	Ford Motor Co. (Eagle boats)		190.75		190.75			190.75			
Total		1,904,291.59	45,780.33	1,497,367.96	3,447,439.88	303,894.08	529,009.96	4,280,343.92			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
EAGLE BOATS.										
301	No. 1			\$767.94	\$767.94		\$229.21	\$738.73		* 92
302	No. 2			507.14	507.14		18.79	491.58		* 92
303	No. 3			604.16	604.16			622.95		* 93
304	No. 4	\$9,083.57	\$276.60	2,304.97	11,665.14	\$107.96	1,251.30	13,024.30		
305	No. 5			783.68	783.68		85.20	878.88		* 92
306	No. 6			7,629.36	20,272.06	1.35	2,675.73	22,949.14		
307	No. 7	12,090.26	1.75	7,682.15	17,783.16	664.06	749.66	21,196.88		
308	No. 8	12,131.98	18.47	5,352.97	17,543.42	674.64	2,799.33	20,977.39		
309	No. 9	9,142.82	592.05	7,254.78	16,989.65	1,302.65	36.21	18,328.51		
310	No. 10		2.70	153.53	156.23	323.14	357.34	836.71		
311	No. 11	13,173.36	300.96	8,928.70	22,401.02	1,015.13		23,416.15		
312	No. 12	3,000.01	19.20	6,524.11	9,543.32	53.95		9,597.27		
313	No. 13		643.30	4,104.50	4,747.80	1,530.33		5,888.13		
314	No. 14	12,049.59		4,742.31	16,791.90	6.60	747.80	17,546.30		
315	No. 15		225.81	8,117.06	8,342.87	531.54	380.41	9,254.82		* 92
317	No. 17, Submarine base, Hampton Roads.	68,951.65		14,373.20	83,324.85	225.68		83,550.53		* 92
318	No. 18			541.00	541.00	138.79	41.40	721.19		
319	No. 19		183.80	16,761.93	16,845.73	199.73	344.02	17,496.48		
322	No. 23	8,946.85		21,219.09	3,062.50		50.16	24,351.84		
324	No. 24			315.25	315.25		2,219.61	2,534.86		92
325	No. 25		335.24	315.61	650.85		11.24	662.09		92
326	No. 26			8,603.44	8,623.69		176.93	11,413.83		
329	No. 29			6,073.20	6,217.18	3,596.55	32.21	9,835.94		* 92
330	No. 30			15.76	15.76			35.01		
331	No. 31, Submarine base, Coco Solo.	126,130.99		12,303.01	12,420.78	252.25	524.09	13,197.12		92
332	No. 32	4,508.39		846.23	847.23	167.49	2,069.48	2,236.97		
333	No. 33, Submarine base, New London.	294,312.39	447.60	5,978.24	1,35	1,054.14		11,542.12		* 92
334	No. 34	1,788.27	8.20	17,446.53	45.10	48.94	46.04	292,300.93		* 92
				5,214.55	63.33	6.50	6.50	5,237.87		

5395	N. 35	2,908.44	.....	2,158.22	4,995.95	76.65	213.28	5,255.59	.....
5396	N. 36	5,210.77	.....	7,451.28	14,189.40	210.08	1,605.32	16,004.80	.....
5397	N. 37	5,705.54	1,527.35	1,037.83	9,833.37	119.55	94.87	10,077.70	.....
5398	N. 38	9,055.23	.....	3,659.17	12,777.00	168.56	14.00	13,857.56	.....
5399	N. 39	4,552.04	2,828.00	9,928.63	17,398.71	156.84	1,262.77	18,668.32	.....
5340	N. 40	15,083.53	86.92	6,580.01	21,750.54	316.83	1,149.64	23,417.03	* 92
5341	N. 41	.....	.....	3,397.13	11,874.70	18.25	.....	12,057.98	.....
5342	N. 42	.....	697.70	10,877.09	18,356.41	394.50	.....	12,146.22	.....
5343	N. 43	.....	.....	38.28	18,356.41	.....	.....	24,436.42	.....
5344	N. 44	.....	326.35	18,030.06	18,356.41	5,860.04	.....	.....	* 92
5345	N. 45	.....	.....	412.32	38,194.17	.....	.....	39,012.32	.....
5346	N. 46	28,028.21	315.66	9,830.30	38,194.17	245.35	563.77	39,012.32	.....
5347	N. 47	2,763.53	.....	1,077.26	9,871.69	400.37	73.84	10,452.98	.....
5348	N. 48	.....	.....	170.54	3,555.71	201.81	1,922.91	2,435.98	* 92
5349	N. 49	3,100.65	91.56	483.50	3,555.71	273.86	20.00	3,831.57	.....
5350	N. 50	.....	.....	211.26	211.26	266.07	2,302.74	2,869.50	.....
5351	N. 51	.....	240.19	11,438.59	11,698.78	222.73	64.53	11,932.05	* 92
5352	N. 52	1,046.70	.....	4,486.23	5,535.95	1,238.63	2,104.64	8,684.55	* 92
5353	N. 53	.....	.....	79.61	7,372.62	618.69	268.12	7,956.42	.....
5354	N. 54	.....	464.35	6,908.27	7,372.62	468.27	.....	7,840.89	.....
5355	N. 55	.....	.....	80.00	80.00	814.54	1,914.15	2,823.69	.....
5356	N. 56	.....	.....	4,703.94	4,703.94	1,103.06	1,968.49	7,803.49	* 92
5357	N. 57	7,216.18	3,867.41	4,703.96	15,786.55	633.43	30.83	16,394.16	.....
5358	N. 58	12,507.52	330.50	4,067.17	16,705.19	1.33	3,945.40	20,651.94	.....
5359	N. 59	.....	228.05	7,169.70	7,397.73	746.45	24.28	8,173.45	.....
5360	N. 60	11,752.69	77.50	5,505.69	15,335.88	316.58	537.01	16,189.42	.....
Total.....		639,612.24	14,600.33	290,674.95	944,887.52	31,797.64	36,162.95	1,012,848.11	.....

* Credit.

* Ordinary.

* Reserve.

* 50 per cent.

TENDERS TO TORPEDO VESSELS.

Mr. KELLEY. Now, tenders to torpedo boats. What did in 1916?

Admiral POTTER. In 1916?

Mr. KELLEY. I do not think it will be specially valuable to back to 1916 as to the torpedo boats, because the numbers are different; therefore, let us take last year and this year and plans for the future based on those two years.

Mr. OLIVER. I think the relative cost of operation might be pertinent.

Mr. KELLEY. That might be, and we will take some vessel.

Admiral POTTER. In 1921 there were 19 tenders to torpedo boats and the total cost of them was \$10,611,302.85.

Mr. KELLEY. Those were the ships accompanying the destroyers.

Admiral POTTER. Yes, sir.

Mr. KELLEY. From which the repairs were made?

Admiral POTTER. Yes, sir; and from which supplies were furnished.

Mr. KELLEY. Supplies and repairs?

Admiral POTTER. Yes, sir.

Mr. KELLEY. It does not include the oil?

Admiral POTTER. Not the oil furnished by the regular tankers.

Col. ROOSEVELT. Am I not correct in saying that in addition to those functions they are really the upkeep end of the destroyers?

Admiral POTTER. Absolutely; yes, sir.

Col. ROOSEVELT. If you will recall, when we had up the question of the expense of the ration the fact was brought out that the torpedo boats are particularly expensive because we have no supply office on board the little boats.

Mr. KELLEY. The stores are carried on these tenders?

Admiral POTTER. The reserve stores, as it were.

Mr. KELLEY. And you have an officer there who serves the stores out to the various ships that make application?

Admiral POTTER. Yes; that is correct.

Mr. KELLEY. And each officer keeps track of what he issues on each ship?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Last year this service cost \$10,611,302.85?

Admiral POTTER. The total operation and maintenance; yes, sir.

Mr. KELLEY. What did the tenders cost during the first three months of 1922?

Admiral POTTER. Eighteen tenders, \$1,782,532.90. If that went on at the same rate during the rest of the year it would be little over \$7,000,000.

Mr. KELLEY. If the destroyers were operating as they were operating during the first quarter, and these ships were kept in commission for the purpose of making necessary repairs and issuing supplies, that would be about \$7,000,000 a year?

Admiral POTTER. \$7,128,000.

Mr. KELLEY. For this current year?

Admiral POTTER. Yes, sir.

Col. ROOSEVELT. Just for your information there are only 10 in commission now.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
TENDERS TO TORPEDO BOATS.											
4601	Alert.....	\$1,249,153.22	\$44,207.16	\$40,206.65	\$1,333,567.03	\$72,120.24	\$20,857.51	\$1,426,574.78	1,010	Jan. 25, 1912	12
4612	Beaver.....	247,326.51	9,248.70	153,428.89	410,002.10	38,289.37	55,339.86	506,631.33	5,970	Oct. 1, 1918	12
8506	Buffalo.....	287,193.41	10,615.40	203,184.30	500,993.11	39,965.63	55,942.63	596,891.37	6,000	Nov. 24, 1915	12
4607	Bushnell.....	224,771.07	11,268.09	100,552.91	336,592.07	54,121.71	135,824.46	526,538.24	3,580	.....do.....	12
4602	Dixie.....	484,063.78	33,915.09	224,483.74	742,462.61	85,081.13	151,298.11	978,811.85	6,525	Apr. 19, 1898	12
4610	Dobbin.....	.....	73.50	.....	73.50	3,437.00	1,137.00	4,647.50	.....	.....	.....
4606	Fulton.....	990,199.92	1,417.44	155,100.39	1,146,726.75	20,744.10	202,119.53	1,369,590.38	1,408	Dec. 7, 1914	12
8802	Hannibal.....	131,115.19	13,662.15	77,395.10	222,202.44	24,492.32	171,352.10	418,046.86	4,000	Oct. 16, 1911	12
4603	Iris.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8803	Lebanon.....	115,618.90	286.40	40,996.83	165,902.13	37,622.57	121,072.77	471,938.93	6,100	Apr. 1, 1898	12
8804	Leonidas.....	317,792.63	17,789.86	219,712.22	555,291.71	32,571.68	6,258.51	594,121.90	3,285	Apr. 16, 1898	12
4609	Melville.....	748,930.06	20,780.38	221,085.06	726,795.50	126.40	60,083.76	790,035.66	7,150	May 21, 1898	12
4604	Panther.....	257,388.26	14,914.50	217,891.00	490,193.76	35,476.53	75,350.81	601,021.10	3,380	Dec. 3, 1915	12
4605	Pompey.....	36,993.82	2,196.35	70,388.51	109,578.68	14,664.95	75,333.33	199,576.96	3,085	May 26, 1898	12
8509	Prairie.....	470,450.92	22,873.38	177,531.06	670,855.36	53,387.35	69,014.79	783,257.50	6,620	Apr. 14, 1898	12
8805	Prometheus.....	414,090.28	11,292.71	288,895.62	714,278.61	48,028.74	93,807.20	855,814.55	12,555	Jan. 15, 1910	12
8913	Rainbow.....	304,660.65	10,514.49	94,261.66	409,436.80	35,546.81	153,285.49	598,269.10	4,360	July 18, 1898	12
4613	Relief.....	.....	.....	53.80	53.80	27,110.43	.....	27,110.43	.....	.....	.....
4611	Whitney.....	.....	.....	9.60	9.60	.....	18.54	28.14	10,600	.....	.....
Total.....		6,018,748.62	225,082.60	2,294,184.34	8,538,015.56	617,746.96	1,455,540.33	10,611,302.85	.....	.....	.....

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
TENDERS TO TORPEDO VESSELS.											
720	Alert.....	\$94,619.44	\$3,892.77	\$60,480.89	\$150,002.10	\$9,101.15	\$168,103.25	1,110	No record....	12	.....
735	Bushnell.....	60,710.14	3,067.78	36,324.39	100,102.31	1,446.28	101,548.59	3,580	Nov. 24, 1915	8	.....
737	Dixie.....	164,681.72	4,201.48	82,144.99	250,948.19	6,821.24	257,769.43	6,114	Apr. 19, 1898	6	.....
732	Fulton.....	118,663.56	4,473.17	42,048.32	165,187.29	18,806.99	183,997.24	1,408	Dec. 7, 1914	12	.....
736	Hib.....	102,632.57	1,008.21	31,635.00	135,275.38	6,894.14	142,169.52	6,100	Apr. 1, 1898	10	.....
738	Melville.....	115,038.15	4,216.59	38,020.57	208,857.31	1,730.83	210,588.14	7,150	Dec. 3, 1915	7	.....
820	Panther.....	117,029.63	1,770.92	38,835.30	157,644.85	26,134.83	183,779.68	8,380	Apr. 22, 1898	.....	12
734	Pompey.....	385,078.55	3,627.08	32,090.47	70,796.10	6,613.01	77,409.11	8,085	May 26, 1898	7	.....
	Total.....	811,377.76	26,907.00	389,789.72	1,228,134.49	77,551.47	1,305,685.96	.....	.....	.....	.....
	Equipage.....	.....	.....	.....	.....	.....	326,421.49	.....	.....	.....	.....
	Total.....	.....	.....	.....	.....	.....	1,632,107.45	.....	.....	.....	.....

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
TENDERS TO TORPEDO BOATS.											
6601	Alert.....	\$1,249,153.22	\$44,207.16	\$40,206.65	\$1,333,567.03	\$72,120.24	\$20,887.51	\$1,426,574.78	1,010	Jan. 25, 1912	12
6612	Beaver.....	247,328.51	9,248.70	153,426.89	410,002.10	38,288.37	58,330.86	506,631.33	5,970	Oct. 1, 1918	12
6506	Buffalo.....	287,103.41	10,613.40	203,184.30	500,903.11	59,955.93	55,042.63	596,891.37	6,000	Nov. 24, 1915	12
6607	Bushnell.....	224,771.07	11,208.06	100,552.91	336,532.07	54,121.71	135,834.46	526,538.24	3,580	.....do.....	12
6602	Dixie.....	484,063.78	33,913.06	224,483.74	742,462.61	85,031.13	151,298.11	978,811.85	6,525	Apr. 19, 1898	12
6610	Dobbin.....	.....	73.50	.....	73.50	3,437.00	1,137.00	4,647.50	.....	.....	.....
6606	Fulton.....	990,194.92	1,417.44	156,109.39	1,146,726.75	20,744.10	202,119.53	1,369,590.38	1,408	Dec. 7, 1914	12
8802	Hannibal.....	131,113.19	13,662.13	77,366.10	222,202.44	24,492.32	171,352.10	413,946.86	4,000	Oct. 16, 1911	12
6603	Iris.....	.....	.....	.....	.....	.....	4,713.93	4,713.93	6,100	Apr. 1, 1898	.....
8803	Lebanon.....	115,618.90	286.40	49,996.83	165,902.13	37,622.57	121,072.77	324,397.47	3,285	Apr. 16, 1898	12
8804	Leonidas.....	317,732.63	17,784.86	219,712.22	553,231.71	32,571.68	6,258.51	594,121.90	4,023	May 21, 1898	12
6609	Neville.....	748,930.06	20,780.38	221,085.06	1,000,795.50	126.40	60,083.76	790,005.66	7,150	Dec. 3, 1915	12
6604	Nanther.....	237,388.26	14,914.30	217,891.00	490,193.76	35,476.53	75,350.81	601,021.10	3,380	Apr. 22, 1898	12
6605	Pompey.....	36,993.82	2,196.35	70,388.51	109,578.68	14,694.95	75,353.33	199,576.96	3,085	May 26, 1898	12
5909	Pompey.....	470,450.92	22,873.38	177,531.06	670,855.36	53,387.35	69,014.79	793,257.50	6,620	Apr. 14, 1898	12
8805	Prometheus.....	414,060.28	11,252.71	288,895.62	714,278.61	38,028.74	93,507.20	856,814.55	12,585	Jan. 13, 1910	12
8913	Rainbow.....	304,660.65	10,514.49	94,261.66	409,436.80	35,546.81	133,285.49	598,260.10	4,360	July 18, 1898	12
6613	Relief.....	.....	.....	53.80	53.80	27,110.43	.....	27,164.23	.....	.....	.....
6611	Whitney.....	.....	.....	9.60	9.60	.....	18.54	28.14	10,600	.....	.....
Total.....		6,018,748.62	225,082.60	2,294,184.34	8,538,015.56	617,746.96	1,455,540.33	10,611,302.85	.....	.....	.....

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
TENDERS TO TORPEDO BOATS.										
4601	Alert.	\$51,330.49	\$472.08	\$1,722.06	\$35,524.63	\$35,972.28	\$810.00	\$90,306.91		
4612	Beaver.	89,321.03		33,134.37	122,455.40	2,631.48	1,715.37	126,802.25		
8506	Buffalo.	105,851.97	8,902.00	35,121.67	149,875.64	13,597.07	811.74	164,284.45		
4607	Bushnell.	51,138.95		25,441.41	76,581.36	13,979.09	3,348.53	80,908.94		
4602	Dixie.	142,077.28	22.69	11,523.74	153,623.71	22,192.84	2,030.36	177,846.91		
4610	Dobbin.					2,345.07		2,345.07		92
4608	Fulton.	35,080.15	365.08	27,606.62	63,051.85	8,440.52	36,096.02	107,588.39		
8502	Hannibal.	36,031.43	1,632.14	38,531.70	77,995.27	571.81	1,830.04	80,397.12		
4603	Iris.						19.70	19.70		92
8803	Lebanon.	20,180.29	220.00	13,047.36	33,447.65	1,050.09	88.00	34,585.74		
8904	Leonidas.	73,814.41		10,185.83	84,000.24	5,176.85	254.57	89,431.66		
4609	McVillie.	105,266.78		54,829.24	161,096.02	8,516.84	2,378.72	171,991.58		92
4604	Panther.	53,101.27	1,404.17	40,152.92	94,658.36	5,543.46	6,745.74	106,947.66		
4605	Pompey.			4,421.72	5,216.56	1,219.07	3,867.17	10,302.80		
8509	Pringle.	99,032.03	794.84	34,142.81	136,511.57	4,904.97	Cr. 8,135.14	133,281.40		92
8805	Prometheus.	95,808.96	2,923.29	65,529.86	164,262.13	32,894.29	53,273.80	250,430.22		
8913	Rainbow.	87,205.37		46,189.56	133,395.83	20,187.84	1,467.85	165,051.52		92
4613	Relief.					10.64		10.64		
Total.		1,048,242.33	20,073.02	441,380.87	1,509,696.22	166,234.21	106,602.41	1,782,532.90		

¹ Reserve.¹ All tenders in commission 92 days except otherwise shown.

GUNBOATS.

Mr. KELLEY. What was the total expense for gunboats in 1916?

Admiral POTTER. \$2,958,721.98; and in 1921, sir?

Mr. KELLEY. Yes, sir; in 1921.

Admiral POTTER. In 1921, \$3,879,498.

Mr. KELLEY. And for 1922, the first quarter?

Admiral POTTER. For 1922, the first quarter, \$699,566.64.

Mr. KELLEY. Please put in the record at this point a list of gunboats for 1916, 1921, and 1922.

Admiral POTTER. Yes, sir.

1922.

[First quarter.]

No.	Name of vessel.	Accrued pay.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Days in full commission.	Status. ¹
			Miscellaneous expense, including communications.	Stores issued, including provisions.							
GUNBOATS.											
3710	Annabell.	\$28,104.89	\$1,272.96	\$16,297.97	\$5,175.82	\$47.50	\$4,773.07	\$4,820.57			92
3721	Ashville.	51,175.43	2,839.33	33,741.26	87,756.52	4,300.70	4,341.16	64,320.08			
3723	Don Juan de Austria.					123.56	798.66	88,078.74			
3723	Elcano.	20,083.37	7,272.93	10,692.17	38,158.37	1,261.52	120.84	39,540.73			92
3806	Essex.	8,983.97	45.00	8,248.01	17,276.98	2,480.14	7,107.62	25,873.74			
3709	Gopher.	18,739.80	195.69	7,196.67	26,131.56	680.35	2,920.10	29,741.01			
3709	Helena.	14,662.07	6,270.34	4,026.69	24,933.10	131.35	327.38	25,411.83		41	51
3705	Macbias.						115.76	115.76			92
3720	Monoway.	19,010.94	4,363.90	3,712.25	27,087.09	1,294.37	1,298.28	29,889.74			
3727	Nantuxet.					3,042.15	3,329.71	6,371.86			92
3712	Newport.					1,033.00	291.60	1,295.20			92
3718	Pedunc.	24,848.95		8,048.26	33,317.21	1,433.11	2,649.17	37,619.49		71	21
3716	Palmah.	14,472.99	9,005.56	5,211.06	28,683.61	5,307.62	1,105.20	35,106.43			
3755	Panama.	8,931.60	1,241.42	4,178.32	14,351.34	2,182.59	14.20	16,548.13			
3756	Quilwa.	13,850.40	3,334.24	7.34	17,191.98	1,576.70	1,913.68	20,682.36			
3719	Sacramento.	41,109.48	1,654.17	21,271.36	63,495.01	4,876.90	5,019.36	73,491.27			
3758	Samar.		11.04		11.04		245.06	256.10			92
3711	Vicksburg.						723.15	723.15			
3710	Villalobos.	14,388.72	1,641.63	4,670.86	20,710.73	1,983.66	60.70	22,755.09			
3714	Wheeling.	12,000.64	171.67	3,836.22	16,108.53	229.89	1,428.40	17,756.82			
3761	Wilmington.	18,853.62	357.83	30,717.25	49,438.70	1,927.80	222.24	52,089.74			
3708	Wilmington.	47,644.19	2,944.71	27,147.17	77,726.07	1,013.27	4,290.93	85,010.27			
3019	Wolverine.	2,791.88		4,110.89	6,902.77	1,511.68		7,414.45			
3020	Yantic.	792.00	345.00	11,890.15	13,027.15	639.17	1,074.97	14,741.20			92
3701	Yocktown.						542.29	542.29			
Total.		371,205.34	42,497.22	205,021.02	618,723.58	35,975.63	44,807.43	699,596.04			

¹ All gunboats in commission 92 days unless otherwise shown.

Col. ROOSEVELT. They are practically all in China, doing work there; in fact, all of them.

Mr. KELLEY. Now, the transports?

Admiral POTTER. In 1916, \$751,342.17.

Mr. KELLEY. And for 1921?

Admiral POTTER. For 1921, \$2,945,391, and for the first three months of 1922, \$260,309.31.

TRANSPORTS.

Mr. DAVIS. How many transports have you?

Col. ROOSEVELT. We have four in commission.

Admiral POTTER. We have four in commission, but we have accumulated charges for 14.

Mr. KELLEY. I was a little curious to know what happened to the *Henderson* in 1921, \$413,763.35 for repairs.

Admiral POTTER. I do not know the reason. She went on the Santo Domingo route.

Mr. KELLEY. Do you remember anything about it?

Col. ROOSEVELT. No, sir; I do not. The *Henderson* has not been repaired since, I recall.

Mr. KELLEY. This was before your time.

Col. ROOSEVELT. That is why I can not give you an answer.

Admiral POTTER. The figures you read are correct, but I do not know the reason.

Mr. KELLEY. The *Great Northern* has been eliminated from the Navy entirely?

Col. ROOSEVELT. Yes, sir.

Mr. KELLEY. You will put in the list of transports and the tables for the three periods which we are discussing?

Admiral POTTER. Yes, sir.

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
TRANSPORTS.											
8511	Charles.....		\$14.00		\$14.00		\$6.16	\$6.16			
1344	Elen.....		681.83	\$11,530.88	12,212.71	\$634.69	163.60	14.00			
8507	General Alava.....			14,972.58	63,834.45	* 784.83	1,216.49	64,268.11	92		
8508	Hancock.....	\$45,897.28	2,964.59	64.00	64.00			64.00	92		
1448	Harrisburg.....										
8501	Henderson.....		5,935.92	57,381.03	160,655.27	9,497.98	11,521.26	181,674.51	92		
8502	Heywood.....	97,338.32	98.32		98.32			98.32			
1718	Manchuria.....		21.00		21.00			21.00			
1738	Masonia.....		40.00		40.00			40.00			
1948	Northern Pacific.....			300.00	300.00			300.00			
1919	Plattsburg.....		215.55	152.00	367.55			367.55			
2028	Santa Clara.....		35.00		35.00			35.00			
2029	Santa Teresa.....						46.26	46.26			
2129	Sierra.....			\$64.40	364.40			364.40			
	Total.....	143,235.60	10,007.21	84,764.89	238,007.70	9,347.84	12,953.77	260,309.31			

* Credit.

¹ All transports out of commission 92 days except otherwise shown.

SUPPLY SHIPS.

Mr. KELLEY. Now, the supply ships for 1916?

Admiral POTTER. For 1916, \$848,213.01. For 1921, \$2,103,099.90.

Mr. KELLEY. Are they the same ships?

Admiral POTTER. There is one new ship, added in 1916, the *Bridge*.
It is one additional ship.

Mr. KELLEY. It was in the list, but only a part of the year?

Admiral POTTER. Yes, sir.

Mr. REED. There was no charge. We had four actually in commission during 1916, and we had five in 1921, one of them only for a part of the year.

Mr. KELLEY. The *Bridge* is an additional ship?

Admiral POTTER. Yes, sir. She was built for a supply ship, the first one actually built by the Navy for that purpose.

Mr. KELLEY. Which one of these has been used with the destroyers?

Admiral POTTER. There has been no supply ship of that kind that has been confined to the destroyers. The ships run in a train, and when there are destroyers they are provided just the same as any others. None belongs to the destroyers.

Mr. KELLEY. How much did they cost the first quarter of 1922?

Admiral POTTER. The same ships cost \$347,014.77.

1916.

No.	Name of vessel.	Title C.				Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Full commission.						Commission in reserve.	
SUPPLY SHIPS.												
779	Bridge.	899,566.72	31,745.09	449,272.02	\$150,583.83	\$34,337.70	\$184,921.53	8,500	Building			
777	Celtic.	92,625.79	3,697.15	48,042.13	144,365.07	41,226.70	185,591.77	6,750	May 23, 1898	12		
776	Culcaen.	94,663.06	4,610.35	78,275.36	177,548.77	49,047.21	226,595.98	6,000	Dec. 3, 1898	12		
778	Glasgow.	87,812.07	4,211.69	59,544.63	161,568.39	99,535.34	251,503.73	8,325	July 5, 1898	12		
775	Supply.							4,325				
	Total Equipage.	374,667.64	14,264.28	235,134.14	624,066.06	224,146.95	848,513.01					
	Total.						1,060,266.26					

1931.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
SUPPLY SHIPS.											
8510	Bridge.....	\$277,642.23	\$23,447.83	\$103,639.51	\$494,729.57	\$37,987.92	\$62,388.87	\$595,105.36	8,500	June 2, 1917	12
8551	Celtic.....	132,854.25	2,704.73	94,390.51	229,949.49	26,704.58	133,949.33	362,693.45	6,750	July 1, 1911	12
8552	Culgoa.....	179,255.95	9,913.55	183,721.88	372,891.38	26,266.32	198,427.75	591,588.45	6,000	do.	12
8553	Glacier.....	154,714.90	15,873.24	104,315.64	274,903.78	18,721.75	191,707.16	485,332.69	8,326	Feb. 12, 1912	12
8554	Supply.....	23,744.72	249.06	38.99	24,032.77	78.60	14,267.63	38,379.00	4,326	July 1, 1911	.....
	Total.....	768,212.05	52,184.41	576,106.53	1,396,508.99	105,852.17	600,740.74	2,103,099.90	.....	.....	.....

[Folio quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
	SUPPLY SHIPS.									
8510	Bridge.....	\$59,674.65	\$840.37	\$35,045.16	\$96,160.18	\$5,672.75	\$1,637.28	\$103,470.21		
8551	Celtic.....	37,292.00	2,901.42	45,889.17	86,142.59	3,439.31	1,711.66	91,293.56		
8552	Culgoa.....	42,545.47	1,202.96	20,658.02	64,406.45	6,754.29	113.54	71,274.28		
8553	Glacier.....	72,608.22		5,968.30	78,476.52	2,003.67	56.56	80,536.75		
8554	Supply.....						439.97	439.97		92
	Total.....	212,120.34	5,004.75	108,060.65	325,185.74	17,870.02	3,959.01	347,014.77		

¹ All supply ships in commission 92 days unless otherwise shown.

HOSPITAL SHIPS.

Mr. KELLEY. The next is hospital ships.

Admiral POTTER. There was only one hospital ship in commission in 1916. That was the *Solace*, and the total amount spent on her was \$265,515.41. In 1921 we had five hospital ships in commission for 12 months, at a total expenditure of \$2,511,536.80.

Mr. KELLEY. What was the amount expended for the *Solace* in 1921?

Admiral POTTER. \$525,466.12. The large amounts in that were for pay and stores issued.

Mr. KELLEY. What was the expenditure for three months of the present fiscal year?

Admiral POTTER. There were four ships in commission at a total cost of \$355,478.47.

Mr. KELLEY. I take it that the *Solace* is pretty well out of commission?

Admiral POTTER. Yes, sir.

Mr. KELLEY. You may put in the record at this point the table covering the hospital ships for the three periods.

Admiral POTTER. I will do so.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission reserve.
801	HOSPITAL SHIP. Solace Equipage.....	\$102,543.68	\$8,380.75	\$47,015.33	\$157,949.76	\$107,565.65	\$265,515.41 66,378.85	5,700	Apr. 14, 1898	12	
	Total.....						331,894.26				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
1011	Adrian.....	\$115.11		\$115.11	\$115.11						
8577	Comfort.....	\$108,775.11	\$8,237.69	41,559.54	158,572.34	\$3,702.88	\$1,241.03	\$1,459.14	330	Nov. 14, 1918	12
8578	Mercy.....	\$98,779.33	\$9,707.51	282,272.72	708,759.56	76,443.97	129,360.19	285,635.41	10,102	Mar. 18, 1918	12
8576	(Relief) Hospital Ship No. 1.....	231,892.19	18,427.66	282,309.19	470,628.04	255,343.53	160,441.25	845,643.78	10,102	Dec. 28, 1920	12
8916	Repose.....					6.67	29,595.91	749,478.78	3,800	Aug. 31, 1919	12
8600	Solace.....	286,457.93	14,519.48	162,227.98	453,205.39	15,628.56	2,793.55	2,803.22	3,800	July 1, 1917	12
2159	South Port.....			68.54	68.54	119.09	56,632.17	52,466.12	5,700		
2114	Sea Gate.....			5.70	5.70		866.02	1,047.45			
	Total.....	1,033,904.56	60,892.34	696,558.78	1,791,355.68	351,247.00	368,934.12	2,511,536.90			

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Admiral POTTER. Yes, sir.

Mr. KELLEY. You may put in the record at this point the table covering the hospital ships for the three periods.

Admiral POTTER. I will do so.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
801	HOSPITAL SHIP.										
	Solace.....	\$102,543.68	\$8,390.75	\$47,015.33	\$157,949.76	\$107,565.65	\$285,515.41	5,700	Apr. 14, 1898	12	
	Equipage.....						66,378.85				
	Total.....						331,894.26				

1921.

No.	Name of vessel.	Title C.				Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.								
1011	HOSPITAL SHIPS.											
8577	Adrian.....	\$108,775.11	\$5,237.69	\$115.11	\$115.11	158,572.34	\$3,702.88	\$1,341.03	\$1,456.14	330	Nov. 14, 1918	12
8578	Mercy.....	406,779.83	19,707.51	41,559.54	158,572.34	708,759.56	76,442.97	123,360.19	285,635.41	10,102	Mar. 18, 1918	12
8578	(Relief) Hospital Ship No. 1.....	231,862.19	18,427.66	282,272.72	470,628.04	255,343.83	2,783.55	23,505.91	945,643.78	10,102	do	12
8915	Repose.....						9.67	2,783.55	749,478.78	9,800	Dec. 28, 1920	12
8900	Solace.....	286,457.93	14,519.48	162,227.98	453,205.39	15,628.56	56,632.17	56,632.17	2,803.22	3,300	Aug. 31, 1919	12
2159	South Port.....			68.54	68.54	119.09		890.02	525,466.12	5,700	July 1, 1917	12
2114	Sea Gate.....			5.70	5.70				1,047.65			
	Total.....	1,033,904.50	60,892.34	696,588.78	1,791,355.68	351,247.00		398,934.12	2,511,536.80			

1923.
[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including compensated rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
HOSPITAL SHIPS.											
5577	Comfort	\$9,620.66	\$1,617.31	\$7,736.65	\$19,004.62	\$1,398.75	\$170.01	\$20,573.38	36	.....	56
5578	Mercury	90,664.87	24.68	41,033.37	131,792.92	2,395.12	383.87	134,571.91	92	.....	.....
5579	Relief Hospital Ship No. 1	115,578.33	2,419.61	68,831.21	186,929.15	9,928.43	11,965.65	194,891.73	92	.....	.....
6000	Solace	5,176.46	.....	.....	5,176.46	4.30	260.69	5,441.45	20	.....	72
	Total	221,040.32	4,061.60	117,771.23	342,903.15	13,736.60	11,151.28	355,478.47	.....	.....	.....

1 Credit.

FUEL SHIPS.

Mr. KELLEY. The next is fuel ships. What was the total expense for fuel ships in 1916?

Admiral POTTER. \$2,641,307.42.

Mr. KELLEY. And in 1921?

Admiral POTTER. In 1921, \$12,595,787.56. For the first three months of 1922 the expenditure was \$2,488,764.04.

Mr. KELLEY. At the same rate of expenditure the expense for the year would be almost \$10,000,000.

Admiral POTTER. Yes, sir.

Mr. KELLEY. Are certain ones of these fuel ships assigned to destroyers?

Admiral POTTER. No, sir; they are all held in the same position as general supply ships. They consort with the fleet or main force, and when destroyers are present they also supply them. Sometimes they send special missions to them.

Mr. KELLEY. If destroyers operate in separate squadrons, then, of course, a certain number of these fuel ships would go along with them?

Admiral POTTER. The method usually followed is for the fuel ship to make the best of its way to the port direct, and catch the destroyers as they come in.

Mr. KELLEY. Would you be in a position to give the percentage of use for destroyers that these ships are assigned to?

Admiral POTTER. No, sir; not offhand.

Mr. KELLEY. That is to say, of this \$10,000,000 for fuel ships, what percentage would be due to the destroyers?

Admiral POTTER. We could work out something that would show pretty closely the proportion, and we could give you a fair approximation of it.

Mr. KELLEY. Work out this proposition: Basing the number of fuel ships on the destroyers per hundred, how many fuel ships per hundred would be required for the destroyers?

Admiral POTTER. We had two oilers whose sole duty it was for a given time to supply oil to the east coast reserve destroyers, and there was one fuel oiler performing the same duty on the west coast.

Mr. KELLEY. You would be in the best position to give information as to the number of these ships that would be unnecessary for every 100 destroyers put out of commission?

Admiral POTTER. Yes, sir; we could figure that out upon the basis of delivering oil to the destroyers, or we could tell how many of those vessels would be necessary to make that delivery.



Mr. KELLEY. In other words, assuming that you have a Navy with 100 destroyers, you can state about what would be required in the way of fuel ships for those destroyers; how many for an additional 100 destroyers; how many for a further additional 100 destroyers, etc., so as to get at the number of fuel ships required under those varying conditions.

Admiral POTTER. We can supply that.

Mr. KELLEY. You may insert in the record at this point the table covering the fuel ships.

Admiral POTTER. We will do so.

OILERS REQUIRED TO MEET FUEL OIL NEEDS OF 100 DESTROYERS.

The following tabulation is submitted showing the number of oilers required to meet the fuel-oil needs of 100 destroyers:

Days per month (24 hours) spent in cruising.....	0	1	2	3	4	5	6	10
Days per month spent in port..	30	29	28	27	26	25	24	20
ACTIVE.								
Number of barrels consumed per month by 1 destroyer in active commission.....	870	1,068	1,266	1,464	1,662	1,860	2,058	2,850
Number of barrels consumed per month by 100 destroyers in active commission.....	87,000	106,800	126,600	146,400	166,200	186,000	205,800	285,000
Number of oilers required if destroyers are in active com- mission on following stations:								
Atlantic coast.....	2	2	3	3	4	4	4	6
European stations.....	6	8	9	11	12	14	15	20
Pacific coast.....	2	3	3	4	4	5	5	7
Asiatic stations.....	7	9	10	12	13	15	16	21
RESERVE.								
Number of oilers required if destroyers are kept in reserve on following stations:								
Atlantic coast.....	2	2	3	3	4	4	4	6
Pacific coast.....	1	2	2	2	2	2	2	3

NOTE.—The above data is predicated upon the assumption that destroyers will operate under conditions similar to those that have obtained during the past year. An increased number of oilers will be required in the event that longer cruises are undertaken, as this would result in vessels operating at a greater distance from source of oil supply. The number of oilers required for a given number of destroyers varies directly with the amount of cruising and the distance of the vessels from the source of oil supply.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers, including committed rations.	Stores issued, including provisions and medical stores.						Full commission.	Commission in reserve.
FUEL SHIPS.											
611	Abarenda.....	\$25,901.05	\$9,829.31	\$26,283.00	\$62,013.36	\$18,331.34	\$80,344.70	6,680	May 20, 1898	12	
612	Alax.....	29,140.85	13,021.67	33,185.68	75,358.20	9,158.99	84,517.19	9,250	May 21, 1898	12	
608	Arethusa.....	25,640.85	5,403.90	26,644.62	57,689.37	46,827.47	104,516.84	6,160	May 27, 1898	12	
610	Brutus.....	22,466.33	4,194.08	21,046.30	47,706.71	64,949.68	112,656.39	6,550	May 27, 1898	12	
606	Caesar.....	26,305.71	9,135.99	17,238.24	52,679.94	24,007.61	76,687.55	14,500	May 13, 1898	12	
624	Cuyama.....								Building		
607	Cyclops.....	50,830.14	5,555.74	46,741.09	103,126.97	46,723.26	149,850.23	19,360	Nov. 7, 1910	12	
613	Elector.....	40,437.54	6,701.77	43,414.29	90,553.60	29,815.06	120,368.66	11,250	Oct. 22, 1909	12	
620	Jason.....	45,460.00	8,657.58	58,311.64	112,429.22	34,166.06	146,595.28	19,250	June 26, 1913	12	
622	Jupiter.....	108,876.12	3,087.56	72,041.75	184,005.43	40,711.01	224,716.44	19,360	Apr. 7, 1913	12	
600	Justin.....	11,751.44	1,905.75	25,359.91	39,017.10	3,260.19	42,286.29		Apr. 27, 1898	7	
616	Kanawha.....	39,246.68	7,580.55	73,821.15	120,648.38	22,685.96	143,334.34	14,500	June 5, 1915	12	
614	Mars.....	42,120.48	19,157.27	49,510.49	110,788.24	45,002.41	155,790.65	11,250	Aug. 26, 1909	12	
617	Maumee.....		6,003.45	5,310.75	6,003.45	2,330.78	8,334.23	14,500	Building		
604	Nanshan.....	25,076.15	3,879.26	46,988.96	75,944.37	11,798.97	87,743.34	5,140	1898	12	
623	Neptune.....	105,536.62	5,126.14	46,900.27	157,563.03	33,313.85	190,876.88	19,480	Sept. 20, 1911	12	
618	Nereus.....	56,337.20	27,173.23	59,888.42	143,398.55	3,393.98	146,792.53	19,080	Sept. 10, 1913	12	
609	Nero.....	29,804.82	4,402.08	36,326.17	70,532.53	32,238.54	102,771.07	6,100	June 8, 1898	12	
621	Orion.....	41,588.68	4,026.16	67,816.76	114,331.60	45,005.57	159,337.17	19,250	July 29, 1912	12	
601	Protus.....	50,291.72	61,811.89	47,541.55	159,615.16	13,557.14	173,172.30	19,080	July 9, 1913	12	
619	Saturn.....	26,525.27	6,542.01	34,119.64	67,196.82	83,056.64	150,253.46	4,840	Apr. 11, 1898	12	
605	Saturn.....	10,461.49	11,145.83	12,140.04	33,747.36	16,345.98	50,093.34	5,660	Apr. 16, 1898	5	
615	Stirling.....	37,108.08	5,457.91	35,890.73	78,456.72	51,901.52	130,358.24	11,250	Oct. 2, 1902	12	
	Total.....	850,895.68	22,388.38	886,822.35	1,962,806.41	678,501.01	2,641,307.42				
	Equipage.....						660,326.86				
	Grand total.....						3,301,634.28				

1921.

No.	Name of vessel.	Title C.		Stores issued, including provisions and medical stores.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.								
FLEET SHIPS.											
8451	Abarenda	\$101,748.88	\$8,820.11	\$57,505.96	\$108,164.95	\$16,091.95	\$36,326.52	\$220,556.42	6,680	July 1, 1911	12
8452	Alex	72,270.82	2,133.45	114,565.83	286,131.20	8,002.36	203,677.21	400,000.00	9,250	July 3, 1907	12
8453	Albatross	109,467.44	8,467.19	117,096.57	226,131.20	66,604.58	26,323.80	328,092.58	5,160	Oct. 1, 1912	12
8454	Albatross	105,253.31	15,421.61	128,770.13	240,434.05	12,268.04	39,825.04	301,647.45	6,380	Oct. 1, 1912	12
10927	Albatross, Robert L.	36,149.04	6,149.43	48,896.26	85,866.26	8,076.02	51,702.57	145,644.85	14,800	Oct. 1, 1919	12
8416	Albatross	135,360.43	6,267.84	277,552.61	419,200.90	13,083.87	81,442.15	513,726.92	6,500	Mar. 27, 1898	12
8456	Brazos	186,561.07	9,268.03	303,350.13	303,350.13	13,680.50	61,635.08	378,066.70	6,940	May 13, 1908	12
8415	Cassius	46,477.07	9,203.06	21,711.80	70,962.38	11,638.92	115,302.82	197,954.10	6,500	Apr. 2, 1917	12
8415	Cuyama	152,212.07	8,200.97	795,718.92	936,200.96	21,475.47	83,744.57	1,061,421.00	14,500	Apr. 22, 1909	12
8407	Hector					10.72	10.72		11,250	Oct. 22, 1909	12
4412	Jason	191,039.33	11,121.23	222,072.56	424,230.12	43,828.42	71,737.89	539,796.43	19,250	June 26, 1913	12
4313	Kanawha	154,682.54	17,226.43	359,178.32	359,178.32	34,262.72	148,578.96	542,340.00	14,500	June 5, 1915	12
8851	Kaweah			111.79	111.79	15.00	28.24	155.03			
8403	Langley (ex-Jupiter)		39.10	440.91	480.01	72,839.08	949,238.05	937,328.98	19,360	Apr. 7, 1913	
8502	Laramie							450.28			
8406	Mars	165,046.26	13,130.10	108,672.50	246,848.86	11,537.51	48,609.25	407,055.62	11,250	Aug. 26, 1909	12
8853	Mattolo				268,402.73	19,683.62	155,067.42	473,183.77	14,500	Oct. 23, 1916	12
8414	Maurice	131,078.35	4,574.95	134,180.00	191,431.94	11,091.30	49,005.23	251,502.47	5,059	—	1898
8416	Nashua	106,708.88	7,261.07	135,828.29	247,801.66	303,127.75	17,938.00	566,887.41	14,800	Sept. 20, 1911	12
8417	Fuel ship No. 17 (ex-Natchez).	252,753.65	18,063.60	431,406.37	35,508.78	35,826.73	397,726.83	905,468.98	19,480	Sept. 10, 1913	12
8408	Nepos	172,442.00	8,601.14	161,406.22	345,401.36	15,202.02	255,403.01	516,096.39	10,080	Sept. 10, 1913	12
8410	Nepos	119,069.12	3,491.14	61,430.67	184,910.87	15,865.90	44,077.60	244,854.37	6,100	June 8, 1898	12
8457	Nero	186,873.78	8,255.31	373,577.37	373,577.37	17,282.85	183,549.19	574,409.41	19,250	Oct. 13, 1912	12
8411	Orion	116,447.88	2,676.00	181,018.50	305,142.44	66,368.43	50,228.83	421,739.70	16,000	July 2, 1919	12
8454	Patoka	177,654.64	7,403.86	207,677.71	392,736.21	40,348.26	162,764.94	595,879.41	19,080	Nov. 9, 1913	12
8409	Protos				267,883.13	12,051.45	41,743.03	321,677.61	16,800	Nov. 15, 1919	
8406	Rapahan						8.44	\$ 162.79			
8406	Rapahan				\$ 162.79		8.44	\$ 162.79			
8406	Salinas				354,505.35	15,252.86	35,755.23	405,603.44	16,800	Feb. 19, 1920	
2022	Sapelo	104,117.75	11,656.60	258,821.00	184,012.90	12,575.28	121,970.75	318,568.03	5,836	Sept. 10, 1918	12
8408	Sarah Thompson	66,954.38	4,931.29	112,107.23	154,012.90	12,575.28	67,041.51	239,980.14	4,940	Apr. 11, 1898	12
8459	Savannah	146,857.40	10,738.43	251,451.13	15,487.50	18,487.50	7,746.40	314,132.26	5,060	Apr. 16, 1908	12
8460	Sterling			16,877.06	15,877.06	37,076.06	25,904.94	330,943.47	16,800	Sept. 4, 1920	
8891	Trinity	101,032.75	9,403.87	275,961.57	275,961.57	37,076.06	25,904.94	375,843.21	11,250	Oct. 2, 1909	12
8405	Vulcan	125,007.44	5,207.00	104,434.31	253,988.75	13,168.64	128,543.82				

1923.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
FUEL SHIPS.											
9451	Abaranda.....	\$25,165.71		\$61,664.33	\$86,830.04	\$3,473.06	\$11,072.33	\$101,375.43			92
9452	Ajax.....	27,394.95		6,067.63	33,372.58	7,064.17	30,451.01	70,867.55			
1053	Alameda.....	26,800.12	\$2,013.19	19,965.93	48,806.24	2,383.90	128.71	51,319.85			
9453	Arcthusa.....	11,935.45	586.97	41,478.68	54,010.08	2,145.71	61.59	56,217.38			
1097	Barnes, Robert L.....	35,086.11	81.00	63,801.40	98,998.51	526.75	1,541.51	101,036.77			
8416	Brazos.....		82.00	589.06	671.06		3.02	668.04		48	
8454	Brutus.....	35,010.82	992.97	14,772.10	50,775.89	4,038.87	5,281.07	60,066.43			44
8455	Cesar.....	32,648.71	1,131.00	11,824.20	45,603.91	1,523.46	1,377.90	48,505.27			
8415	Cuyana.....	35,765.10	1,471.33	21,153.74	58,390.17	425.01	34,953.44	93,773.62			
8412	Jason.....	28,160.23	1,238.76	81,739.26	111,138.25	1,598.96	322.73	113,359.94			
8413	Kanawha.....					13.95	172,345.06	172,361.61			
9403	Langley (ex-Jupiter).....						24,759.43	170,482.11			
9406	Mars.....	41,843.80	382.78	99,306.01	141,532.59	4,190.09	35,968.59	98,896.30			
8414	Maunsee.....	37,353.41	84.14	13,276.40	50,713.95	12,173.76	35,998.59	98,896.30			
9414	Nashua.....	35,111.99	1,535.76	14,010.24	50,657.99	1,061.93	610.09	52,350.01			
8456	Neches.....	38,178.11	1,874.92	95,131.63	135,184.66	3,142.20	2,099.42	140,426.28			
9417	Neptune.....	50,798.78	2,420.57	71,230.88	124,450.23	12,961.09	1,835.00	139,266.32			
9408	Neptune.....	35,062.66	1,628.56	131,669.44	168,360.66	12,085.43	2,116.42	182,562.51			
9410	Nereus.....	14,842.61		4,162.79	19,005.40	1,218.24	500.74	20,724.38		74	18
8457	Nero.....	41,541.55	922.93	35,592.66	78,057.14	4,689.21	8,547.43	91,293.78			
1884	Orion.....	33,987.29	6,741.67	23,788.75	64,527.71	1,587.05	1,519.80	64,460.46			
9409	Patoka.....	40,734.50	570.90	51,160.11	92,465.51	6,283.99	3,313.68	102,065.18			
1968	Proetus.....	40,738.35	815.29	49,394.01	90,945.65	8,429.05	30,493.94	129,870.64			
2022	Ramapo.....	20,012.22	1,719.73	53,412.20	85,144.15	4,494.60	783.91	90,412.66			
8438	Sapelo.....	14,487.99	3,594.62	18,586.30	2,060.88	2,060.88	1,093.28	21,740.46			
9459	Sara Thompson.....	33,296.02	119.79	15,671.55	49,086.36	2,289.29	3,671.01	55,046.66			
8460	Saturn.....										
8460	Sterling.....										
2222	Trinity.....	34,143.46	950.66	49,646.16	84,740.28	1,741.29	540.83	87,022.40			
4860	Tippecanoe.....										
9405	Vulcan.....	6,474.15		17,800.39	81.60		6,109.68	81.60			72
8418	Pecos.....			72.23	24,274.54	140,339.02	1,177.00	30,384.22			55
9418	Cyclops.....				72.23	98.60		141,588.25			92
Total.....		786,481.07	27,959.21	1,052,005.13	1,866,445.41	239,797.46	382,621.17	2,488,764.04			

* Credit.

¹ All fuel ships in commission 92 days unless otherwise shown.

MINE SWEEPERS.

Mr. KELLEY. We now come to the mine sweepers: What was total number of mine sweepers in commission in 1916?

Mr. REED. We did not have that class of ships in 1916.

Mr. KELLEY. What was the amount expended on account mine sweepers in 1921?

Admiral POTTER. \$7,451,349.88.

Mr. KELLEY. And now much for the first three months of fiscal year?

Admiral POTTER. \$1,481,264.70. If we went on at that rate the expenditure would be \$5,900,000, but of course, it will not go on at that rate.

Mr. KELLEY. I notice in this table on pages 122 and 123 of the 1921 reports that all of these mine sweepers were put into commission in 1917, 1918, and 1919. They were evidently gathered up during the war. Where did you get these boats?

Admiral POTTER. We had some built. The best of them were built by the Staten Island Shipbuilding Co., which was a general shipyard, but which built a lot of mine sweepers for us. The others are tugs, etc., as I remember, and small yachts. Most of them are converted vessels.

Mr. KELLEY. This is a sort of nondescript class of ships.

Admiral POTTER. Yes, sir; consisting of yachts, tugs, etc. About 20 of them were specially built.

Mr. KELLEY. How many of these boats are there in this list for 1921?

Mr. REED. There were 44 in commission in 1921, and there are considerably more than that now.

Mr. KELLEY. There must be 100 here.

Mr. REED. Yes, sir; but on the ones other than the 44 in commission the charges will only total a very few thousand dollars, and undoubtedly they represent delayed charges and some light repairs made on them while they were laid up at the yards.

Mr. KELLEY. How many are on the list?

Admiral POTTER. The total number for 1922 is 65. Some of them have very small charges.

Mr. KELLEY. We did not have any of those ships in the Navy prior to the war at all?

Admiral POTTER. I find one here which seems to have gone into commission in 1915. In general, that statement is correct.

Mr. KELLEY. Do they carry any guns?

Admiral POTTER. Some of them carry two machine guns.

Mr. KELLEY. If we went on at the same rate that we have gone for the first three months, we would spend \$5,000,000 a year on account of these vessels?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Will you put into the record, or would you be the proper one to put into the record, a little analysis of the kind of boats these are, giving their size and tonnage?

Admiral POTTER. I think that would be more properly an operations matter.

Mr. OLIVER. We had very few of these boats prior to 1916?

Mr. KELLEY. We did not have any at all.

Admiral POTTER. They began in 1917.

Mr. KELLEY. Do you know of your own knowledge how these boats
, used in peace time?

Admiral POTTER. No, sir.

Mr. KELLEY. You may insert your table at this point.

Admiral POTTER. I will do so.

Genesee	101.34	587.67	688.01	930.00	95	Jan. 31, 1918
Genevieve				792.36		
Goliath	2.00	57,939.15	128,212.09	136.65	950	Apr. 30, 1919
Gothawk		10,321.53	10,321.53	157,223.18	950	Dec. 4, 1917
Grebe				10,321.53		
Cypsum Queen	307.00	25,516.12	70,863.47	80,020.29	950	Oct. 30, 1918
Heron	229.36	1,818.18	3,818.18	1,818.18		Aug. 11, 1917
Hinton, John B.		1,717.17	3,317.17	3,317.17	400	Aug. 19, 1917
Hubbard, D. H. B.	1,000.00		47.15	47.15		
Iris		1,065.25	3,283.25	3,283.25		
James, W. T.	1,000.00	4,161.91	121,308.39	16,814.49	950	Aug. 27, 1918
Kingfisher	1,487.25	1,887.89	1,887.89	2,040.71	950	May 26, 1918
Kucka Becker		2,887.72	109,663.49	120,043.18	950	Sept. 2, 1918
Lapwing	65,818.43	88,328.53	183,619.47	230,146.36	950	Apr. 12, 1918
Lark	39,644.46	1,515.15	1,515.15	1,515.15		May 12, 1917
Leaves, City of		208.37	208.37	233.05		May 8, 1917
Long Island		31.10	31.10	619.51		Sept. 20, 1917
Lowell		31.10	31.10	31.10		May 20, 1917
Luce Bros.	1,461.47	39,733.92	41,195.39	112,338.71		Nov. 10, 1917
Lykens	2,116.40	68,631.38	134,516.52	195,332.85	950	June 26, 1919
Mallard		195.60	195.60	195.60		May 5, 1917
Manfield, F. and Sons (Co.		16.06	16.06	131.17		Aug. 14, 1917
McKee, Edward J.		1,515.15	1,515.15	1,515.15		May 20, 1917
McNeal, G. H.	179.15	7,747.26	77,908.04	7,824.37		Apr. 7, 1917
Mendota (ex-Concord)		66.52	66.52	8,000.99	950	Dec. 1, 1917
Messick, W. L.		25,779.11	77,908.04	103,746.80		Nov. 5, 1918
Nahant	51,284.47	844.46	77,908.04	272.94	950	Apr. 16, 1918
Orlale		82.96	35.12	37,775.86	950	Jan. 7, 1919
Osborne, Chase S.	21,591.40	10,106.41	31,780.77	162,948.14	950	July 11, 1918
Osprey	529.52	51,377.37	115,662.42	107,741.82	950	Sept. 17, 1919
Owl	1,715.08	45,051.88	80,225.43	149.23		Aug. 7, 1917
Ortolan	40,814.78	149.23	149.23	121,010.26		June 17, 1919
Palmer, J. A.	53,043.07	47,459.29	101,770.99	186,050.23	950	Oct. 10, 1918
Partridge	70,856.55	37,423.63	108,746.28	1,816.95	950	Dec. 27, 1919
Pelican		3.60	3.60	1,816.95	950	Nov. 21, 1918
Peacock	162.44	48,457.25	124,814.51	45,628.99	950	Apr. 28, 1917
Penquin	76,194.82	36,531.83	36,531.83	46,313.66	950	July 15, 1918
Penobscot		13,471.62	42,490.48	125.00	950	
Pigeon	28,876.93			2.04		
Flower		2.04	2.04	173,331.24	950	Apr. 29, 1919
Pontiac		47,887.65	138,396.67	226,850.53	950	June 5, 1918
Quail	885.76	88,639.68	169,813.95	146.47	950	Sept. 10, 1918
Rail	1,386.47			1,312.87	950	Oct. 17, 1919
Ranger		92,453.26	154,825.41	180,098.86	950	Aug. 29, 1918
Rayen	61,250.73			20,300.30	950	June 1, 1918
Redwing		1,121.42		61,972.34	950	Sept. 10, 1918
Resolute	30,902.66	25,887.53	57,364.46	130,576.86	950	Apr. 17, 1917
Robin		155.09	2,206.22	10,043.14		June 1, 1918
Ross, Sadie				12,249.36		
Shenandoah (ex-Hackett, F.V.)	900.82	1,905.40				

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
MINE SWEEPERS—continued.											
2161	Spartan.			\$630.24	\$630.24	\$159.83	\$58.58	\$58.58	500	Sept. 22, 1918	
2163	Spray.						1,635.51	2,425.58	500	June 1, 1918	
2171	Starling.			90.85	100.85			100.85		Aug. 19, 1918	
2185	St. Co., No. 2.		6,143.81		6,143.81			6,143.81		Sept. 27, 1918	
7096	Striven, Peter C.			56.52	56.52		178.29	235.81		May 18, 1917	
2181	Surf.			56.25	56.25			56.25		May 8, 1917	
7097	Sussex.		284.73		284.73	2,000.00		3,964.09			
7304	Swallow.	\$37,483.66	7,125.20	45,816.73	110,423.59	2,826.88	46,817.23	100,000.70	950	Oct. 8, 1918	12
7304	Swamp.	76,730.80	100,666.20	26,917.99	184,214.99	10,407.59	8,620.36	203,332.94	950	Jan. 31, 1919	
7337	Sunderling.	64,022.58	1,485.32	36,227.24	104,725.14	6,977.06	20,928.37	132,631.57	950	Aug. 20, 1918	12
7351	Sandpiper.	78,477.85	1,618.81	50,513.03	130,606.69	8,924.12	32,488.97	172,022.78	950	Oct. 9, 1919	
2043	Sappho.						616.00	616.00		Aug. 20, 1917	
7330	Sea Gull.	65,998.18	246.20	44,481.86	110,626.24	2,826.83	13,689.35	127,172.42	950	Mar. 6, 1919	
7095	Sea Rover.	6,227.34	144.50	8,833.32	14,205.16	256.37	782.56	9,892.45	600	Jan. 31, 1918	
7305	Tanager.	61,510.58	242.56	42,337.29	104,090.43	3,364.26	41,372.84	149,047.53	950	June 28, 1918	12
7318	Thrush.	17,610.04	282.15	35,205.78	131,097.97	4,709.94	15,656.22	151,407.13	950	Aug. 20, 1919	
7323	Teal.	40,098.24	547.03	25,128.32	74,773.59	5,062.78	46,628.87	125,065.24	950	Aug. 20, 1918	12
7313	Turkey.	61,381.27	942.00	64,330.24	126,653.51	7,675.22	48,042.09	182,370.82	950	Dec. 13, 1918	12
7331	Tern.	57,609.04	2,021.02	49,887.47	110,117.53	9,019.89	4,766.67	115,897.09	950	May 17, 1919	12
7098	Undaunted.	25,909.33	136.81	21,630.91	47,677.05	4,434.96	28,740.48	80,852.49	450	Feb. 5, 1918	12
7700	Victorine.			1,706.02	1,706.02	1,105.76	2,502.39	4,311.94		Oct. 30, 1917	
7352	Vireo.	74,086.10	923.02	48,677.34	123,686.46	4,890.58	37,604.90	166,151.94	950	Oct. 16, 1919	
7353	Warbler.	11,402.59	1,460.42	27,490.53	39,353.34	7,741.87	7,742.40	102,037.15	950	Dec. 22, 1919	12
7335	Whippoorwill.	69,357.99	2,397.04	64,968.94	136,753.97	7,540.78	124,032.22	179,477.62	950	Apr. 1, 1919	12
7322	Widgeon.	41,408.20	156.16	11,532.61	53,196.97	2,258.43	1,255.43	55,653.83	950	July 27, 1918	12
7354	Willet.	17,327.22		544.69	17,871.91	4,765.68	26,384.00	47,892.02	950	Feb. 19, 1919	12
7314	Woodcock.	67,469.55		48,861.76	116,331.31	9,086.41		151,801.72	950		
	Total.	2,838,849.09	182,187.15	2,366,906.32	5,388,035.56	338,620.95	1,724,703.47	7,451,346.98			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
MINE SWEEPERS.										
7519	Avocet.....	\$17,085.77	\$158.80	\$13,821.29	\$31,065.86	\$2,047.95	\$5,602.89	\$38,716.70		
7538	Auk.....	1,337.00		1,527.39	2,864.39	1.35	16,090.27	18,956.01		
7536	Bittern.....	4,275.85	419.32	9,118.75	13,813.92	876.13	74.39	14,764.44		
7520	Bobolink.....	14,789.52		18,534.96	33,324.48	241.55	797.61	34,363.64		
7654	Bouker No. 2.....			12.00	12.00			381.71	92	
7524	Brant.....	11,802.06	310.60	9,424.06	21,536.72	18.37	1,263.47	22,818.56		
7505	Cardinal.....	13,422.54	324.32	6,285.33	20,042.19	16.07		20,058.26		
7657	Challenge.....	9,240.77	72.70	6,379.09	15,692.56	478.24		20,383.20		
7539	Chewink.....	14,392.31		20,900.23	35,292.54	134.19	166.80	35,593.53		
7660	Conestoga.....		37.00	4,702.10	4,739.10	* 690.32		4,048.78	92	
7540	Cormorant.....	15,462.62	477.70	11,301.45	27,241.77	1,947.44	382.81	28,472.02		
7608	Curlow.....	8,536.99		5,084.46	13,601.45	443.47	16,937.61	30,962.53		
7664	Dreadnaught.....		132.26	1,984.99	2,117.25	75.37	771.08	2,963.70		
7655	Easthampton.....						97.14	97.14	92	
7517	Eider.....	11,044.95	233.18	12,378.99	23,657.12	983.62	180.41	24,801.15		
7628	Falcon.....	32,387.92	351.43	10,208.33	42,948.68	152.34	88.09	43,186.11		
7667	Favorite.....						26.60	26.60	92	
7509	Finch.....	19,042.54	14.00	14,606.57	33,663.11	6,189.99	4,150.28	44,003.38		
7532	Flamingo.....			9,922.36	33,922.36		1,606.75	2,530.46		
7641	Gannet.....	14,239.78	530.05	8,639.32	23,409.15	132.52	1.11	23,542.78		
7543	Genesee.....	12,317.80	6,728.32	2,995.42	22,036.54	73.53	850.86	22,983.93		
7543	Grebe.....	14,353.43	115.48	8,161.23	22,670.14	261.46	304.61	23,236.21		
7510	Heron.....	16,410.00	106.70	16,115.72	32,632.42	1,007.19	4,714.23	38,353.84		
7674	Hinton, John B.....						31.51	31.51	92	
7525	Kingfisher.....	13,993.16	315.27	13,932.21	28,240.64	778.37	522.69	29,541.70		
7501	Lapwing.....	14,447.26	201.26	12,406.66	27,055.21	757.82	14,865.04	42,678.07		
7521	Lark.....	13,550.18		22,780.40	36,330.58	1,649.47	86.87	38,066.92		
7679	Lykens.....		285.40	9,408.97	9,692.37	241.92	163.53	10,097.82		
7544	Mallard.....	14,067.43		26,898.57	40,964.00	760.26	111.61	41,835.87		
7659	Mendota (ex-Concord).....			5,472.75	5,472.75	77.76	1,431.70	6,982.21	92	
7507	Ortolo.....	14,044.42	232.50	12,593.39	26,870.31	271.86	23,260.59	27,417.95		
7529	Osprey.....			375.90	375.90		5,804.50	30,803.17		
7502	Owl.....	14,159.06	223.00	9,268.60	23,640.66	1,358.01		30,803.17	92	

¹ Reduced.² Credit.³ Reserved.⁴ All mine sweepers in full commission 92 days except as otherwise noted.

1922—Continued.

No.	Name of vessel.	Accrued pay.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.		
			Miscellaneous expense, including consumed rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	
MINE SWEEPERS—continued.											
7545	Orcutt.	\$8,572.39	\$83.85	\$6,511.72	\$15,108.16	\$1,918.11	.....	\$17,086.27		
7546	Partridge.	14,297.75	260.24	10,108.90	24,606.89	609.42	\$4,783.60	30,099.91			
7547	Pelican.	11,287.86	101.00	6,182.11	17,570.97	36.96	649.89	18,287.82		92	
7548	Peacock.						243.00	243.00			
7549	Penquin.	16,181.25		13,143.49	29,826.74	606.86	399.42	30,333.02			
7550	Penobscot.						5,520.56	5,520.56		92	
7551	Pigeon.	10,996.20		7,870.99	18,876.19	297.62	1,472.40	20,646.21		92	
7552	Quail.	14,710.28		17,810.48	32,520.76	141.75	441.21	33,103.72			
7553	Rail.	15,486.37		19,490.46	34,976.83	238.32	425.50	35,640.65			
7554	Redwing.	14,108.75	154.20	13,111.79	27,374.74	7,652.30	6,528.09	41,553.13			
7555	Robin.	15,135.77		15,538.71	30,674.48	329.27	5,029.67	36,033.42			
7556	Ross, Sadie.					8.00	8.00	8.00		92	
7557	Shamondah (ex-Hackett, F. V.).			34.40	34.40		8,262.41	8,262.41		92	
7558	Spray.						262.82	262.82		92	
7559	Stux.						16.34	16.34		92	
7560	Swallow.	9,848.05	4,228.12	7,771.43	21,847.60	476.02	21,168.03	43,491.65			
7561	Swan.	14,865.26		5,942.28	20,837.54	330.53	6,238.66	27,408.73		92	
7562	Sunderling.	9,065.92	906.15	496.55	10,501.60	220.37	2,839.80	13,211.12			
7563	Sunderling.	17,822.79	81.60	12,728.24	30,632.63	508.31	98.55	31,240.49			
7564	Seagull.	13,626.49		13,691.50	27,317.79	45.97	136.49	27,500.25			
7565	Sea Rover.			28.59	28.59		28.36	56.95		92	
7566	Tanager.	14,334.12	157.65	9,170.68	23,692.45	511.95	9,400.28	33,694.68			
7567	Thrush.	14,755.30		3,875.45	18,630.75	384.45	315.48	19,310.68			
7568	Thrush.	15,613.36		18,712.60	34,325.96	60.46	1,103.88	35,550.30			
7569	Turkey.	10,298.66	83.26	8,090.25	19,162.17	1,347.88	390.90	20,799.95		92	
7570	Tern.	14,643.43	316.65	9,062.69	24,043.07	1,836.54	10,338.58	35,218.19			
7571	Undanted.	6,340.36		10,186.70	16,527.06	1,110.81	338.43	17,976.30			
7572	Vireo.	14,764.97	.75	21,636.33	36,492.08	225.67	1,106.95	37,774.70			
7573	Warbler.			6.60	6.60			6.60		92	
7574	Whippoorwill.	11,133.50		6,800.82	17,934.32	13.55	776.04	18,724.51			
7575	Whippoorwill.	25,463.47	59.00	4,264.26	29,806.73	2,430.88	29,000.05	55,137.66			
7576	Woodcock.	13,345.71		26,266.46	39,632.17	107.08	19.27	39,768.52		92	
Total.		641,133.60	17,820.09	565,424.75	1,224,378.44	40,238.47	216,647.70	1,481,264.70			

* Reserved.

* Credit.

* Reduced.

* Ordinary.

VESSELS ON SPECIAL DUTY.

Mr. KELLEY. The next is converted yachts and patrol vessels.

Admiral POTTER. In 1915 we had a total of 16 vessels. Some of them were in commission and some out. Against them we had charges in 1916 amounting to \$590,332.79.

Mr. KELLEY. What did the converted yachts cost us in 1921?

Admiral POTTER. The total charges were \$3,614,995.40.

Mr. KELLEY. And for the first three months of this year?

Admiral POTTER. \$978,068.63.

Mr. KELLEY. Considering the lower cost, we are probably using yachts more generously than last year, are we not?

Mr. OLIVER. Why not let him answer as to 1921 and 1922 expenditures?

Mr. KELLEY. That is what he is doing now.

Admiral POTTER. If the expense continued at that rate, it would be \$3,900,000 for the entire year.

Mr. KELLEY. You may insert at this point the table covering 1916, 1921, and 1922, and the first three months of 1922.

Admiral POTTER. Yes, sir.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
VESSELS ON SPECIAL DUTY.											
829	Alleen.....		\$597.00	\$107.72	\$704.72	\$95.76	\$800.48	192	May 14, 1898		
834	Dorothea.....	\$121.00	1,254.32	2,870.69	4,246.01	4,946.23	9,192.24	594	June 1, 1898		
833	Eagle.....	47,717.98	1,192.55	35,475.75	84,386.28	14,745.77	99,132.05	434	Mar. 26, 1898	12	
828	Elfrida.....		363.80	623.38	987.18	230.85	1,218.03	164	June 30, 1898		
837	Gloucester.....		991.80	3,218.22	4,210.02	5,588.27	9,798.29	786	May 20, 1899		
832	Hawk.....		942.00	890.79	1,832.79	708.83	2,541.62	375	Apr. 5, 1898		
825	Huntress.....		941.44	505.84	1,447.28	7,451.37	8,898.65	82	July 1, 1898		
840	Mayflower.....	123,286.83	6,275.05	31,595.20	161,157.08	19,816.30	180,973.38	2,690	Apr. 30, 1898	12	
826	Oneida.....										
836	Scorpion.....	47,689.81	1,817.20	45,141.58	94,648.59	3,892.64	3,892.64	150	Apr. 30, 1898	4	
831	Stranger.....		544.20	32.95	577.15	146.17	94,794.76	775	June 30, 1898	12	
837	Sylyph.....	60,449.93	7,533.56	6,947.86	74,631.35	3,430.26	1,532.98	369	June 30, 1898		
830	Sylvia.....		1,272.60	6,946.91	2,219.51	3,430.26	78,061.61	152	Aug. 18, 1898	12	
838	Vixen.....		908.40	716.48	1,624.88	319.49	5,278.58	302	June 29, 1898		
835	Wasp.....		603.00	1,522.56	2,125.56	4,350.22	1,944.37	806	Apr. 11, 1898		
839	Yankton.....	47,136.87	313.80	20,818.16	68,268.83	16,938.45	85,277.28	630	do.....		
	Total.....	326,402.42	25,560.72	151,114.09	503,067.23	87,265.56	590,332.79		May 16, 1898	12	
	Equipage.....						147,583.20				
	Total.....						737,915.99				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including outfitting.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
VESSELS ON SPECIAL DUTY.											
8702	Actus.....			\$15.81	\$15.81		\$7,710.05	\$7,710.05		Apr. 18, 1917	
8703	Adelant.....			5,959.19	5,959.19	\$159.20	475.01	6,118.39			
8704	Adirondack.....			18.20	18.20		98.51	116.71			
8705	Admiral.....						11.38	49,922.40		July 19, 1917	
8706	Advance.....			5,881.51	5,881.51	1,673.98	42,366.91	5.80	192	July 27, 1918	
8901	Allen.....			2.70	2.70	3.19		85.65		May 14, 1918	
1017	Alsea.....			85.65	85.65			260.67		Apr. 16, 1918	
1080	Alaska.....			260.67	260.67			260.67		Sept. 18, 1918	
8701	Alcedo.....						610.45	1,936.08		May 17, 1917	
1036	Amegansett.....			1,936.08	1,936.08			1,873.77		June 5, 1917	
1050	Aphrodite.....			1,873.77	1,873.77			2,258.86		do.	
8707	Aready.....			2,648.41	2,648.41	2,622.49		2,622.49		June 5, 1917	
1065	Ardic.....	\$2.00		320.92	323.92			1,784.21		Jan. 15, 1918	
8709	Arcturus.....	6.12		16,941.79	16,947.91	835.00	1,784.21	2,108.13		Oct. 17, 1917	
8708	Ardent.....	30.33		2,182.29	2,212.62	4,777.28	253.39	18,086.30	263	June 29, 1917	
8710	Atlantic.....			14.43	14.43			14.43			
1079	Aurora.....			105.00	105.00			1,377.52		Sept. 22, 1917	
1078	Artec.....			1,067.84	1,067.84			301,197.64		June 30, 1917	
8712	Barnegate.....	3,465.99		6,221.62	9,687.61	40.20		10,829.97	900	Oct. 12, 1917	
8713	Barnett.....			3,250.47	3,250.47			19,705.08		Dec. 21, 1919	
8714	Bauman, P. K.....			1,528.69	1,528.69			1,528.69			
8715	Bella.....			322.52	322.52	10.64		1,114.68	2,500	Apr. 24, 1918	
1113	Berkshire.....	8,515.38		34.00	8,549.38			18,794.59	2,900	May 18, 1917	
8717	Bradley, G. H.....							781.52		May 12, 1917	
8718	Breakwater.....	\$2,314.06	1,602.50	26.95	3,943.53	8.87		3,943.53		July 13, 1917	
8650	Brown, Albert.....							1,473.91		Dec. 7, 1917	
1154	Calumet.....							25.60	170		
8720	Cambridge.....			19.93	19.93		5.67	36.00			
1462	Caswell, Herman.....			11.33	11.33			36.00	200		
8722	Chesapeake.....										
8726	Cristobal.....	243.99		11,557.09	17,006.48	3,929.70	20,840.13	41,776.31	2,000	May 31, 1917	
8728	Corona.....			2,403.29	2,403.29			2,403.29		July 20, 1917	
1238	Corsair.....			2,376.65	2,376.65			2,376.65			
1239	Courier.....			4,608.38	4,608.38			4,920.35	1,600	May 15, 1917	
1250	Cynthia.....							60.19			
8716	Dantzier, Bessie H.....			13,580.21	13,580.21	480.00		14,018.65	1,000	Oct. 20, 1917	
8716	Dantzier, Bessie H.....			688.98	2,914.69			540.44		Aug. 19, 1918	
1269	Dempsey, L. A.....	2,226.71		1,000.00	1,962.00	1,007.30		4,220.22		Oct. 13, 1917	
1269	Dempsey, L. A.....	62.00						586.10			

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including rationed stores.	Stores issued, including provisions and medical stores.							
VESSELS ON SPECIAL DUTY—continued.											
8730	Despatch.....	\$38,174.01	\$1,284.87	\$35,427.24	\$74,896.12	\$14,128.22	\$5,935.81	\$92,650.15	237	Aug. 11, 1917	.....
8602	Dorothea.....			375.51	375.51	143.15	52.97	571.63	594	Apr. 20, 1917	.....
8731	Druid.....		97.35	23,682.28	23,779.63	981.61	4,155.26	28,916.50	.....	Aug. 17, 1917	.....
8603	Eagle.....		225.48	1,508.55	1,734.03	36.76	1,037.77	2,808.56	434	July 1, 1917	.....
8733	Engeline.....			2,959.56	2,959.56			2,959.56	.....	July 14, 1917	.....
1291	Florence.....			10.40	10.40			10.40	.....		.....
8738	Galeta.....		38.00	11,288.18	11,326.18		4,493.48	15,819.66	.....	Nov. 16, 1917	12
1402	General Putnam.....			54.00	54.00		650.69	704.69	.....	July 29, 1917	.....
8605	Gloucester.....		9.10	247.21	256.31		18.71	275.02	.....	Apr. 7, 1917	.....
8739	Guinevere.....			1,094.27	9,072.01			9,072.01	.....	May 10, 1917	.....
1449	Harvard (ex-Wacouta).....		970.85	4,639.54	5,610.39	24.91	43.29	5,678.59	285	Dec. 24, 1917	.....
8740	Harriet.....			154.26	1,174.69		931.37	1,085.63	375	July 1, 1917	5
8746	Havik.....		4,250.48	10,895.28	16,400.58	3,370.19	1,814.78	21,645.55	.....	Nov. 17, 1917	.....
8606	Helm.....			657.54	657.54	125.80	4,361.30	5,144.64	.....	Feb. 27, 1918	.....
1458	Helm.....		6.25	11	6.36			6.36	.....	Feb. 27, 1918	.....
8741	Herrshoff, No. 306.....			4.96	4.96			4.96	.....	Mar. 24, 1918	.....
8742	Herrshoff, No. 308.....								65	Mar. 24, 1918	.....
8743	Herrshoff, No. 321.....								797	June 10, 1917	.....
8744	Herrshoff, No. 323.....								.....	Dec. 28, 1917	.....
Isabel.....		2,304.48	547.60	6,084.42	5,936.50	55.85	3,028.09	3,028.09	.....	June 15, 1918	.....
7906	Joyance.....			2,453.41	2,453.41	6.00	13,933.77	22,956.12	.....	Dec. 28, 1917	.....
8745	Keweenaw.....			11.50	11.50		658.35	3,117.76	.....	July 30, 1917	.....
1450	Kajeruna.....			680.08	680.08			680.08	.....	May 18, 1917	.....
8746	Kwasind.....		434.57	12,407.95	12,842.52	24.00	2,918.12	12,818.52	400	Dec. 5, 1917	.....
8749	Leogonia, No. 2.....		495.46	10,183.16	11,754.69	10,451.17	2,918.12	25,123.98	.....	June 14, 1917	12
8750	Lydonia.....			16,764.77	16,764.77	1,970.89	1,389.48	20,125.14	.....	Oct. 27, 1917	.....
1701	Macchigonne.....		60.00		60.00	3,122.45		3,182.45	.....	May 15, 1918	.....
8751	Mann, Charles.....			378.84	378.84		3.42	382.26	.....	June 7, 1917	.....
8752	Margaret.....		50.60	5,431.69	5,431.69	1,997.82	15,836.54	18,213.20	2,000	Oct. 16, 1917	.....
8754	May.....			5,252.34	6,757.02	2,821.89	1,798.27	8,750.12	.....	Oct. 16, 1917	.....
8755	Mary Alice.....		1,594.68	12.28	5,136.50	580.00	5,778.10	9,073.26	.....	May 10, 1917	.....
8608	Mayflower.....		5,124.22	68,682.74	292,792.71	49,382.37	82,558.52	424,913.60	2,600	July 25, 1905	12
1417	McLane, Gov. R. M.....		202,758.66	36.73	36.73			36.73	.....		.....
1753	McChellan.....			156.25	156.25			156.25	.....		.....
8756	Merritt, T. J.....		357.00	357.00	357.00			357.00	.....		.....
			221.94	19.50	241.44	136.30		377.74	.....		.....

NAME	17. MI	6, 819. 08	6, 038. 84	7, 345. 98	Aug. 27, 1917
Montauk	104, 046. 45	61, 819. 08	219, 535. 13	225, 034. 47	Oct. 12, 1917
Namda	102. 72	6, 008. 06	6, 160. 74	7, 356. 49	
Narragansett		2. 70	2. 70	1, 194. 71	Feb. 21, 1918
Nauset	167, 250. 10	106, 095. 95	240, 033. 13	788, 885. 21	Apr. 16, 1918
Niangua		4, 241. 91	2, 421. 91	11, 762. 65	Dec. 8, 1917
Nokomis		14, 467. 89	14, 467. 89	1, 520	May 10, 1917
Noma		292. 07	292. 07	1, 708. 49	Apr. 13, 1917
Nonpareil		15, 938. 26	15, 938. 26	3, 800	
Old Colony		533. 17	1, 599. 17	1, 599. 17	Sept. 22, 1917
Onward	1, 036. 00	664. 70	664. 70	4, 109. 12	June 15, 1917
Owena		2, 750. 04	2, 750. 04	2, 772. 20	
Parthenus		27. 90	27. 90	2, 114. 56	May 21, 1917
Passchoque		2, 938. 33	2, 938. 33	2, 938. 33	Apr. 28, 1917
Phillips, David K.		6, 698. 02	25, 439. 60	25, 439. 60	
Piqua	18, 309. 30	15, 810. 78	15, 810. 78	6, 735. 67	
Pocomoke		517. 69	6, 248. 21	6, 248. 21	
Porcupine (ex-Moosehead)		27. 55	27. 55	98. 52	
Portmaster General		28. 00	28. 00	28. 00	
Priscilla		2, 408. 40	2, 408. 40	2, 408. 40	Oct. 18, 1917
Raleph		170. 61	170. 61	482	July 11, 1917
Rambler		831. 42	831. 42	89	July 20, 1917
Remick	60, 730. 42	1, 371. 44	1, 371. 44	61, 661. 94	
Roamer		3. 45	21. 45	1, 589. 46	
Rogday		1. 54	1. 54	2. 45	Nov. 29, 1917
Santee	21. 48	133, 128. 80	425, 267. 18	1, 248. 49	Sept. 14, 1917
Sapphire		278, 502. 74	1, 251. 33	2, 686. 35	Sept. 1, 1917
Satellite				435, 762. 07	May 1, 1917
Scorpion		1, 251. 33	1, 251. 33	3, 213. 84	Apr. 11, 1898
Shady Side				61. 40	
Shuttle				6. 24	June 30, 1917
Sialia				196. 12	June 7, 1917
Springfield				531. 74	Oct. 6, 1917
S. P. 117 (ex-Mohican)				234. 49	Sept. 22, 1917
S. P. 237 (ex-Ranger)				301. 55	May 21, 1917
S. P. 247 (ex-Fulton)				3. 04	
S. P. 328 (ex-Margaret)				48. 56	
S. P. 406 (ex-Vigilant)				13, 004. 78	July 18, 1917
S. P. 427 (ex-Seneca)				51, 965. 24	May 22, 1917
S. P. 467 (ex-Delaware)				2, 341. 12	July 9, 1917
S. P. 507 (ex-Machigonne)				471. 31	Nov. 17, 1917
S. P. 524 (ex-Margaret)				87. 07	Apr. 20, 1917
S. P. 582 (ex-Halcyn)				75	July 1, 1917
S. P. 669 (ex-Pawnee)				20, 911. 53	June 29, 1917
S. P. 638 (ex-John L. Lawrence)				3, 448. 43	June 27, 1917
Sultana	20, 184. 21	468. 72	20, 730. 93	3, 448. 43	Aug. 18, 1898
Sylph	28, 739. 79	12, 807. 26	42, 238. 73	3, 448. 43	June 26, 1898
Sylvia		691. 68	26, 226. 22	31, 118. 77	
Tramp				880. 23	
Vedette				4, 000. 67	May 28, 1917
Vega				1, 910. 97	Sept. 17, 1917

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
VESSELS ON SPECIAL DUTY—continued.											
2281	Venetia.....			\$3,716.10	\$3,716.10	\$1,024.95	\$2,185.90	\$6,928.95	589	Oct. 15, 1917	.....
2701	Vergara.....			4,981.26	4,981.26	278.17	3,705.16	8,965.59	128	Apr. 16, 1917	.....
2812	Viken.....	\$15,630.67		126,676.08	297,312.56	14,217.11	11,367.87	322,897.54	806	Apr. 11, 1898	.....
2793	Wacoandah.....			1,801.48	1,801.48		1,125.85	2,927.33	190	Sept. 14, 1917	.....
2794	Wadena.....			15,174.74	15,174.74	1,326.00	1,559.31	18,060.05	250	Jan. 14, 1918	.....
2795	Wacida.....			3,468.01	3,468.01			3,468.01	853	Aug. 6, 1917	.....
2796	Wanderer.....			2,616.87	2,616.87		75.00	2,691.87	362	Aug. 6, 1917	.....
2813	Wasp.....			11,450.67	11,450.67	2,742.01	3,705.61	17,898.29	630	Apr. 11, 1898	.....
2797	Winonah.....			11,400.90	11,400.90	754.67	2,105.89	14,261.46	290	Oct. 22, 1917	.....
2798	Winchester.....			41.86	41.86		1,065.28	1,107.14	399	Mar. 9, 1918	.....
2420	Xarlib.....		50.00	99.69	149.69	12.25		161.94	378	Feb. 23, 1918	.....
2799	Yacona.....	47,047.72	430.95	19,633.72	67,114.39	12.75	1,677.69	68,804.83	527	Dec. 10, 1917	.....
2814	Yankton.....			42,148.46	42,148.46	501.40	2,469.70	45,149.56	975	May 16, 1898	.....
2800	Zara.....		3.78	208.05	208.05		1,880.55	2,089.60	184	Oct. 21, 1917	.....
2443	Zoraya.....			15.00	15.00			15.00	129	Dec. 17, 1917	.....
Total.....		1,001,008.06	328,162.82	993,467.32	2,322,638.20	198,150.33	1,094,206.87	3,614,995.40	.....	.....	.....

1923.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
8706	Advance.....			\$1,634.95	\$1,634.95	\$117.50	\$275.35	\$2,027.80	92	
1050	Abroditte.....						232.22	232.23		
1055	Arctic.....		\$22.32		22.32		2.92	2.92		
8708	Arctic.....		2.92	2.92	7.00		7.00	7.00	92	
8710	Atlantic.....									
8713	Barnett.....						7,124.57	7,124.57		
8715	Bella.....									
8715	Bella.....			21.00	21.00					
1238	Corsair.....					34.36		21.00		
1239	Courier.....							34.26		
8716	Danzler, Bessie H.					2,360.15		2,360.15		
8730	Dispatch.....	\$3,454.49		5,936.14	9,890.78	1,648.93	1,037.33	12,583.04	92	
8803	Eagle.....						64.11	64.11		
8805	Gloucester.....			15.36	15.36			15.36		
8740	Hauld.....		183.92		183.92			183.92		
8747	Hawk.....	45.00	48.88	1,220.87	1,323.75	853.49		2,177.24	92	
8748	Isabel.....	22,860.40		34,452.39	57,312.79	76,267.64	52,054.14	185,634.57	75	17
7906	Johnson, Catherine.			550.20	550.20			550.20		
8749	Legonia, II.....			722.26	2,280.33	115.50	20.80	2,425.63	92	
8754	May.....	1,567.07		1.74	1.74	117.13		118.87		
8808	Mayflower.....	52,368.68		19,842.76	72,241.44	12,866.67	5,184.39	90,292.50	92	
1779	Montauk.....					97.65	588.96	686.61		
1810	Montauk.....		294,903.80		294,903.80			294,903.80		
8760	Naahon.....						4.67	4.67	92	
8761	Niagara.....	40,416.15	217.83	9,733.23	50,367.21	4,326.73	26,885.22	81,579.16		
8762	Nokomis.....	6,426.45	95.32	190.80	6,711.57	4,738.36	103,981.28	115,431.21	68	24
8763	Nonpareil.....									
8767	Parthenia.....									
8767	Parthenia.....									
8768	Patchogue.....		40.00	2,452.15	2,492.15			2,492.15		92
1917	Piqua.....						331.04	331.04		
7691	Pocomoke.....	3,930.36	25.20	587.20	4,542.76		458.67	5,001.43	92	
8753	Porpoise (ex-Moosehead).			4,634.71	4,634.71	8.00	742.12	5,384.83	92	
8774	Samoset.....						6.06	6.83	92	
2040	Santee.....			\$ 8.21	\$ 8.21			\$ 8.21		

* Credit.

* All out of commission 92 days unless otherwise shown.

Mr. KELLEY. I suppose these vessels were hunting submarines and things like that, were they not, in 1917 and 1918?

Admiral POTTER. Yes, sir.

Mr. KELLEY. How many of these converted yachts did we have in 1916?

Mr. REED. We had 16 of them in 1916.

Mr. KELLEY. There must be 100 here.

Admiral POTTER. Yes, sir; there are at least 100.

Mr. KELLEY. Some of them run into quite a little bit of money.

Admiral POTTER. There are only a few in commission now.

Mr. KELLEY. Do you happen to know why the expenses of the *Niagara* should run for 1921 to \$788,385?

Admiral POTTER. I am under the impression that she was overhauled preparatory to going down to Mexico, where she served on special duty for a number of months.

Mr. KELLEY. What about the *Scorpion*?

Admiral POTTER. She is at Constantinople.

Mr. KELLEY. Is she a large vessel?

Admiral POTTER. No, sir; she is a good-sized yacht.

Mr. KELLEY. I notice she cost \$433,752.07.

Mr. REED. They put extensive repairs on her at Constantinople, and I think that a part of that expenditure is undoubtedly represented by the pay of a considerable personnel that was stationed at and in the neighborhood of Constantinople.

Mr. KELLEY. This is the major ship at Constantinople?

Mr. REED. Yes, sir.

Mr. KELLEY. The item for the *Vixen* is \$322,897.54.

Admiral POTTER. I do not know what her duty was.

Mr. KELLEY. Do these vessels carry guns?

Admiral POTTER. About 3-inch guns.

TUGS.

Mr. KELLEY. How many tugs did we have in 1916, and what was the expense?

Admiral POTTER. There were 50 tugs in 1916, and the total expense was \$1,020,403.08.

Mr. KELLEY. How many tugs did we have in 1921, and what was the expense?

Mr. REED. There are 145 in this list for 1921.

Mr. KELLEY. What was the total expense?

Admiral POTTER. The total expense was \$4,769,193.61.

Mr. KELLEY. For the first three months of 1922 what was the expense?

Admiral POTTER. We had 113 tugs at an expense of \$1,144,295.58.

Mr. KELLEY. At that rate, we are using tugs more this year than last year, considering the lower cost?

Admiral POTTER. At that rate, the annual expense would be \$4,576,000.

Mr. KELLEY. You may insert your tables at this point.

Admiral POTTER. I will do so.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
VESSELS ON SPECIAL DUTY.											
829	Allen.		\$597.00	\$107.72	\$704.72	\$95.76	\$800.48	192	May 14, 1898		
834	Dorothea.		1,254.32	2,870.09	4,264.41	4,946.23	9,192.24	594	June 1, 1898		
833	Eagle.	\$121.00	1,192.56	35,475.75	84,368.28	14,745.77	99,122.06	434	Mar. 25, 1898	12	
828	Florida.		865.80	623.38	967.18	230.85	1,211.03	164	June 30, 1898		
837	Gloucester.		991.80	3,218.22	4,210.02	5,588.27	9,798.29	798	May 20, 1899		
832	Hawk.		942.00	900.79	1,832.79	7,708.83	2,541.62	375	Apr. 5, 1898		
825	Huntress.			505.84	1,447.28	7,451.37	8,998.65	83	July 1, 1898		
840	Mayflower.	123,280.83	6,275.06	31,565.20	161,157.08	19,816.30	180,973.38	2,060	Apr. 30, 1898	12	
826	Ononda.		1,817.20	45,141.58	94,648.59	3,862.64	3,862.64	160	Apr. 30, 1898	4	
836	Scorpion.	47,689.81	544.20	32.95	94,577.15	146.17	94,794.76	776	Apr. 11, 1898	12	
831	Stranger.		7,553.56	6,647.86	74,631.35	3,430.26	1,532.96	369	June 30, 1898		
827	Sylph.	60,449.93	1,272.60	946.91	2,216.51	3,656.07	78,681.61	183	Aug. 18, 1898	12	
830	Sylvia.		908.40	716.48	1,624.88	319.49	5,678.08	202	June 29, 1898		
838	Vixen.		603.00	2,125.56	1,944.37	4,350.22	1,944.37	806	Apr. 11, 1898		
835	Wasp.			1,522.56	68,268.83	16,968.45	86,227.28	630	do.		
839	Yankton.	47,136.87	313.80	20,818.16	503,067.23	87,265.56	590,332.79	975	May 16, 1898	12	
	Total.	326,402.42	25,560.72	151,114.09			147,585.20				
	Equipage.										
	Total.						737,915.99				

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equiptage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including committed rations.								Stores issued, including provisions and medical stores.
VESSELS ON SPECIAL DUTY.										
8702	Actus.....			\$15.81		\$7,710.05	\$7,710.05		Apr. 18, 1917	
8703	Adelant.....			5,959.19		475.01	6,434.20			
8704	Adirondack.....			18.20	\$159.20		177.40			
8705	Admiral.....					98.51	98.51		July 19, 1917	
8706	Admiral.....					11.35	11.35		July 27, 1918	
8707	Advance.....			5,881.51	1,673.98	42,366.91	49,922.40	192	May 14, 1918	
8708	Alben.....			2.70	3.19		5.89		Apr. 16, 1918	
8709	Alben.....			86.65			86.65		Sept. 18, 1918	
8710	Alaska.....			260.67			260.67			
8711	Alcedo.....			1,938.03			1,938.03			
8712	Amagansett.....			1,873.77		610.45	2,544.22		May 17, 1917	
8713	Amphitrite.....			2,043.41	2,622.49		4,665.90		June 5, 1917	
8714	Arctid.....								do.	
8715	Arctid.....	\$3.00		323.92			323.92		Jan. 15, 1918	
8716	Arctur.....	6.12		16,941.79	835.00	1,784.21	18,561.00		Oct. 17, 1917	
8717	Arctur.....	30.33		2,212.62	4,777.28	233.39	6,993.96	283	June 20, 1917	
8718	Atlantic.....			14.43			14.43			
8719	Aurora.....			105.00			105.00		Sept. 22, 1917	
8720	Aurora.....			1,067.84		1,272.52	2,340.36		June 30, 1917	
8721	Aztec.....			9,087.91		300,197.64	311,285.55	900	Oct. 12, 1917	
8722	Barnegate.....	3,465.99		6,221.62	40.20	642.36	10,330.17		Dec. 21, 1919	
8723	Barnett.....			3,250.47		16,504.41	19,754.88			
8724	Bauman, P. K.....			1,628.69			1,628.69			
8725	Bella.....			322.52	10.64	781.52	1,114.08	2,500	Apr. 24, 1918	
8726	Berkshire.....	8,515.38		34.00		8.87	42.87	2,500	May 18, 1917	
8727	Bradley, G. H.....								May 12, 1917	
8728	Breakwater.....	\$2,314.08							July 13, 1917	
8729	Brown, Albert.....			26.95			26.95		Dec. 7, 1917	
8730	Calumet.....			19.93	1,473.91	5.67	1,493.84	170		
8731	Cambridge.....				36.00		36.00			
8732	Caswell, Herman.....			11.33			11.33	200		
8733	Chesapeake.....	243.99		11,557.09	3,929.70	20,840.13	41,776.31	2,000	May 31, 1917	
8734	Cristobal.....			2,403.29			2,403.29		July 20, 1917	
8735	Corona.....			2,376.65			2,376.65		May 15, 1917	
8736	Corsair.....	311.97		4,608.38			4,920.35	1,600		
8737	Courier.....					60.19	60.19			
8738	Cytheria.....			13,589.21	480.00	549.44	14,618.65	1,000	Oct. 20, 1917	
8739	Danziger, Bessie H.....	2,225.71		2,914.69	1,007.30	298.23	4,220.22		Aug. 19, 1918	
8740	Dampsey, L. A.....			1,000.00		536.10	1,536.10		Oct. 13, 1917	

1921—Continued.

No.	Name of vessel.	Accrued pay.	Title C.	Stores issued, including provisions and medical stores.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
VESSELS ON SPECIAL DUTY— continued.											
5730	De-spatch.			\$35,427.24	\$74,936.12	\$14,128.22	\$3,635.81	\$92,660.15	227	Aug. 11, 1917	.....
5922	Dordrea	\$38,171.01	\$1,294.87	375.51	375.51	131.15	12.07	871.03	594	Apr. 20, 1917	.....
5731	Druid			22,662.28	23,779.63	981.61	4,132.26	28,916.50		Apr. 17, 1917	.....
5943	Eagle		97.35	1,508.55	1,754.03			2,508.55	431	July 1, 1917	.....
5733	Endine		225.48	2,956.56	2,956.56	36.76	1,637.77	2,956.56		July 14, 1917	.....
1391	Flourine			10.40	10.40			10.40			.....
5736	Galahad		38.00	11,298.18	11,326.18		4,493.18	15,819.36		Nov. 16, 1917	12
1402	General Putnam			54.00	54.00		630.69	704.69		July 29, 1917	.....
5935	Gloves (ser.)		9.10	247.21	256.31		18.71	275.02		Apr. 7, 1917	.....
5739	Gunnere	7,977.74		1,094.27	9,072.01			9,072.01		May 10, 1917	.....
1449	Harvard (ex-Wacatta)		970.45	4,639.54	5,610.39	24.91	43.29	5,635.59	285	Dec. 24, 1917	.....
5740	Hauli			154.26	154.26		831.37	1,045.35	375	Dec. 1, 1917	5
5938	Hawk	1,811.52	4,250.48	10,365.28	16,400.38	3,370.19	1,814.78	21,045.35		Nov. 17, 1917	.....
1458	Helenita		6.25	657.54	657.54	125.80	4,361.30	5,144.54		Feb. 27, 1918	.....
5711	Herrshoff, No. 308.			4.96	4.96			4.96		Feb. 23, 1918	.....
5742	Herrshoff, No. 308.									Mar. 24, 1918	.....
5744	Herrshoff, No. 321.									Dec. 28, 1917	.....
5747	Isabel									June 15, 1918	.....
7005	Joyance	2,404.48	547.00	6,084.42	8,936.90	85.85	3,028.09	3,460.80	65	Dec. 28, 1917	.....
1559	Kalerina			2,453.41	2,453.41	6.00	13,933.77	22,956.12	797	June 10, 1917	.....
5746	Kewslind			11.50	11.50		638.35	3,117.76		June 20, 1917	.....
5749	Leopolda, No. 2.			12,407.95	12,942.52			12,942.52	400	Dec. 5, 1917	.....
5750	Lydonia	1,076.07	484.57	10,183.16	11,754.69	24.00	2,918.12	20,123.94		June 14, 1917	12
1701	Macilgoanne			16,764.77	16,764.77	1,451.17	1,396.48	25,125.14		Oct. 27, 1917	.....
8512	Mann, Charles		60.00		60.00	3,122.45		3,182.45		May 18, 1918	.....
8751	Manna Hatta.						3.42	3.42	2,000	June 7, 1917	.....
8752	Margaret		50.60	328.24	378.84	1,997.82	15,836.54	18,213.20		Oct. 16, 1917	.....
8754	May			5,431.99	5,431.99	2,821.89	498.24	8,750.12			.....
8755	Mary Alice		1,504.68	5,262.34	6,757.02	580.00	1,733.37	9,070.29		May 10, 1917	.....
8808	McLowe, Gov. R. M.			12.26	5,126.50		5,778.16	10,916.66	2,660	July 26, 1906	12
1417	McLowe, Gov. R. M.	202,769.66	21,531.31	69,662.74	292,972.71	40,392.37	82,556.52	424,913.60			.....
1755	McClahan			155.26	155.26			155.26			.....
1745	McClahan			155.26	155.26			155.26			.....
5765	Merritt, I. J.			16.80	241.44	136.30		397.00			.....

8757	Montauk		17.81	6,819.03	6,836.84	409.09	7,245.93	2,900	Aug. 12, 1917
1810	Nanua		168,049.45	51,485.68	219,535.13	2,732.55	223,004.47		Oct. 12, 1917
1814	Narada				6,160.78		736.79		
1815	Narragansett		102.72	6,058.06	2,700	1,108.71	282.05		
8760	Nausaton			2.70	280,033.13	1,714.77	738.49		Feb. 21, 1918
8761	Niagara		6,707.06	108,096.95	2,421.91	51,785.50	788,385.21	2,600	Apr. 16, 1918
8762	Nokomia			4,241.91	14,467.89	73.50	11,762.65		Dec. 3, 1917
8140	Noma			14,467.89	15,282.07	108.20	14,578.06	1,250	May 10, 1917
8763	Nonpareil			15,938.26	15,938.26		1,708.49	1,530	Apr. 13, 1917
8764	Old Colony			553.17	1,538.17		15,938.26	3,800	Sept. 22, 1917
8765	Onward		1,036.00	664.70	664.70		664.70		June 15, 1917
1877	Owara			1,583.06	2,750.04	2,528.06	4,106.12		
8767	Parthenia			2,750.04	2,750.04	22.16	2,772.20		
8768	Patchogue			27.90	2,938.33	46.40	114.56		May 21, 1917
8769	Phelps, David K.			2,938.33	25,267.51	171.99	25,439.50	575	Apr. 28, 1917
1917	Piqua			15,481.78	15,510.13	605.38	22,851.19	710	
7691	Pocomoke		270.19	517.69	6,248.21	61.08	6,309.29		
8758	Porpoise (ex-Moosehead)		28.35				98.52		
1940	Postmaster General		5,730.52				27.85		
1952	Priscilla						28.00		
1975	Raleigh						2,408.90		
8770	Rambler			28.00			1,081.11		
8771	Remlik			170.61	61,661.84	468.02	1,899.46		
8773	Roamer			931.42	1,371.44		21.48		
1994	Rogday		60,730.42	3.48			2,448.49		
8774	Samoset						63.18		
2042	Santee						5,791.10		
2043	Sepulture		21.48				3,213.84		
2046	Satellite						1,261.83		
8776	Satilla			1.54			61.40		
8909	Scorpion		13,655.64	133,128.80	425,287.18	2,024.63	199.12		
8778	Shady Side						2,673.79		
2127	Shuttle		1,251.33		1,251.33		6.24		
8777	Shalla						6.24		
2164	Springfield			199.12	199.12		199.12		
2058	S. P. 117 (ex-Mohican)						531.74	231	June 7, 1917
8779	S. P. 237 (ex-Ranger)			234.49	234.49	457.74	234.49	219	Oct. 9, 1917
2061	S. P. 247 (ex-Fulton)			236.55	236.55		301.55	229	Sept. 22, 1917
8780	S. P. 328 (ex-Margaret)			3.04	3.04		3.04	273	May 21, 1917
2064	S. P. 406 (ex-Vigilant)			48.56	48.56		48.56		
8781	S. P. 427 (ex-Seneca)			12,105.42	36,448.55		51,595.24		July 18, 1917
8782	S. P. 457 (ex-Delaware)			2,341.12	2,341.12		2,341.12		May 22, 1917
8783	S. P. 507 (ex-Machigonne)			18.60	18.60		471.31	195	July 9, 1917
8784	S. P. 524 (ex-Margaret)						452.71	161	Apr. 20, 1917
8785	S. P. 592 (ex-Halcyon)						87.07	161	Nov. 17, 1917
2077	S. P. 699 (ex-Pawnee)						76.00	75	July 1, 1917
8786	S. P. 838 (ex-John L. Lawrence)			468.72	20,730.93		20,911.53	229	June 29, 1917
2178	Sultana		78.00	3,448.43	3,448.43		3,448.43	360	May 27, 1917
8789	Syph			12,807.26	42,238.73		47,444.75	152	Aug. 18, 1898
8911	Sylvia		691.68	20,226.22	20,226.22		31,118.77	302	June 28, 1898
8790	Tramp						880.23		
2276	Vedette			4,000.67	4,000.67		4,000.67	441	May 28, 1917
8790	Vega						1,910.97		Sept. 17, 1917

1921—Continued.

No.	Name of vessel.	Title U.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
VESSELS ON SPECIAL DUTY continued.											
2261	Venetia.			\$3,716.10	\$3,716.10	\$1,024.95	\$2,185.90	\$6,926.95	589	Oct. 15, 1917	.....
8791	Vergaua.			4,981.26	4,981.26	279.17	3,705.16	8,965.59	128	Apr. 16, 1917	.....
8612	Vixen.	\$153,003.81	\$15,030.67	126,076.08	297,312.56	14,217.11	11,367.87	322,897.54	806	Apr. 11, 1898	.....
8793	Wasondah.			1,801.48	1,801.48		1,125.85	2,927.33	190	Sept. 14, 1917	.....
8794	Wasiena.			15,174.74	15,174.74	1,326.00	1,559.31	18,060.05	250	Jan. 14, 1918	.....
8795	Wakida.			3,468.01	3,468.01			3,468.01	853	Aug. 6, 1917	.....
8796	Wanderer.			2,616.87	2,616.87			2,601.87	362	July 14, 1917	.....
8613	Wasp.			11,450.67	11,450.67	2,742.01	3,705.61	17,898.29	630	Apr. 11, 1898	.....
8797	Wenonah.			11,400.90	11,400.90	754.67	2,103.89	14,261.46	290	Oct. 22, 1917	.....
8798	Winchester.			41.86	41.86		1,065.28	1,107.14	399	Mar. 9, 1918	.....
2420	Xaria.		30.00	99.69	149.69	12.25		1,161.94	378	Feb. 23, 1918	.....
8799	Yacona.	47,047.72	430.95	19,635.72	67,114.39	12.75	1,677.69	68,804.83	527	Dec. 10, 1917	.....
8614	Yankton.			42,148.46	42,148.46	501.40	2,496.70	46,149.56	975	May 16, 1898	.....
8800	Zana.		3.78	293.27	299.05		1,880.55	2,080.60	184	Oct. 21, 1917	.....
2443	Zoraya.			13.00	13.00			15.00	129	Dec. 17, 1917	.....
Total.		1,001,008.06	325,162.82	993,467.32	4,322,638.20	198,150.33	1,094,206.87	3,614,995.40			

1923.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
8706	Advance.....			\$1,634.95	\$1,634.95	\$117.50	\$275.35	\$2,027.80	92	
1050	Aphrodite.....						232.22	232.22		
1055	Arctic.....		\$22.32		22.32			22.32		
8708	Arctic.....			2.92	2.92			2.92		
8710	Atlantic.....			7.00	7.00			7.00	92	
8713	Barnett.....						7,124.57	7,124.57		
8715	Bella.....						78	78		
1238	Corsair.....			21.00	21.00			21.00		
1239	Courier.....					34.36		34.36		
8716	Dantzer, Bessie H.....					2,369.15		2,369.15		
8720	Dispatch.....	\$3,454.49		5,936.14	9,396.78	1,648.93	1,037.33	12,583.04	92	
8603	Eagle.....						64.11	64.11		
8605	Gloucester.....			15.36	15.36			15.36		
8740	Hanoli.....		183.92		183.92			183.92		
8606	Hawk.....	45.00	48.88	1,229.87	1,323.75	853.49		2,177.24	92	
8747	Isabel.....	22,860.40		34,432.39	57,312.79	76,267.64	52,054.14	185,634.57	75	17
7908	Johnson, Catherine.....			550.20	550.20			550.20		
8749	Legonia, II.....			722.26	722.26			722.26		
8754	May.....	1,667.07		1.74	1.74	115.50	20.80	2,425.63	92	
8608	Mayflower.....	52,388.68		19,842.76	72,231.44	117.13		90,262.50	92	
1770	Montauk.....					12,865.67	5,184.39	18,050.06		
1810	Nalma.....		294,903.80		294,903.80	97.65	588.96	294,903.80		
8760	Naushon.....						4.67	4.67	92	
8761	Niagara.....	40,416.15	217.83	9,733.23	50,367.21	4,526.73	26,885.22	81,570.16		24
8762	Nokomis.....	6,426.45	95.32	100.80	6,711.57	4,738.36	103,981.28	115,431.21	68	
8763	Nonpareil.....						22.56	22.56		
8764	Parthenia.....						.02	.02		
8765	Patchogue.....		40.00	2,452.15	2,492.15			2,492.15		92
1917	Piqua.....						331.04	331.04		
7991	Pocomoke.....	3,930.36		587.20	4,517.56		458.67	5,001.43	92	
6758	Porpoise (ex-Moosehead).....		25.20		4,542.76	8.00	742.12	5,394.83	92	
8774	Santee.....		.78	4,634.71	4,634.71		6.05	6.83	92	
2040	Santee.....			\$ 8.21	\$ 8.21			\$ 8.21		

: Credit.

: All out of commission 92 days unless otherwise shown.

1923—Continued.

No.	Name of vessel.	Title C.			Total operat- ing expenses.	Equipage.	Repairs and alterations to ships, includ- ing equipage.	Total main- tenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, in- cluding com- muted rations.	Stores, issued, including provisions.					Days in full com- mission.	Operating with re- duced comple- ments in reserve or ordinary.	Days out of com- mission.
8609	Scorpion	\$69,581.86	\$523.46	\$30,128.32	\$80,233.64	\$85.02	\$2,002.03	\$92,920.69		
8782	S. P. 467 (ex-Delaware).	6,220.53		5,772.92	11,993.45	1.35		11,994.80	92	
2077	S. P. 699 (ex-Pawnee).						44.04	44.04		
8786	S. P. 838 (ex-John L. Lawrence).						942.44	990.76	92	
8810	Syph.	7,563.77	20.15	18.32	18.32	424.47	829.28	12,395.65		
8811	Silvia.			3,647.96	11,131.90		918.96	918.96	92	
8812	Vixen.	22,131.43	605.21	12,732.15	35,558.79	981.68	435.54	36,976.01	92	
2207	Wachusett.		5.38		5.38	571.58	6.72	583.68		
8793	Wacoundah.						22.56	22.56		
8794	Wadena.					17.60		17.60		65
8813	Wasp.	6,875.15	547.68	1,173.63	8,596.66		807.60	807.60	27	
8799	Yacona.						151.08	8,596.66		
5814	Yankton.							151.08		
	Total.	253,470.34	297,846.17	135,379.99	666,696.50	106,642.71	206,729.42	978,068.63		

7018	Michale	4,037.01	375.90	21,789.30	26,760.37	5,933.11	27,910.03	60,003.09	875	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
TUGS—continued.											
7043	Tug No. 43.			\$53.85	\$53.85			\$53.85	1,000		
7046	Tug No. 46.			4.30	4.30		\$6,777.26	6,777.26	216		
7047	Tug No. 47.			380.46	380.46		8,700.10	8,700.10			
7048	Tug No. 48.			296.92	296.92	\$104.00	668.90	1,046.86			
7049	Tug No. 49.			7.24	7.24	104.00	917.42	1,321.34			
7050	Tug No. 50.						383.90	506.14			
7051	Tug No. 51.		\$7.98		7.98		3.89	4.08			
7052	Tug No. 52.			45	45			45			
7053	Tug No. 53.			56.21	56.21			56.21			
7054	Tug No. 54.		144.85	2,372.46	2,517.31			2,517.31			
7055	Tug No. 55.			47.71	47.71			47.71			
7056	Tug No. 56.		4.88	9,611.67	9,616.55	\$95.00	2,633.29	13,244.84			
7057	Tug No. 57.			10,182.84	10,182.84	\$25.11	4,828.31	15,036.26			
7058	Tug No. 58.			4.58	4.58	251.09	127.77	128.39			
7059	Tug No. 59.					333.35	8.28	251.09			
7060	Tug No. 60.		123.03	693.24	816.27	333.35	3,036.80	10,255.36			
7061	Tug No. 61.			7,567.66	7,720.69		1,004.36	8,053.80			
7062	Tug No. 62.		1.00	6,946.04	6,947.04	102.40		7,049.48			
7063	Tug No. 63.			246.45	246.45		14.08	260.48			
7064	Tug No. 64.					554.85	6,916.27	14,412.70			
7065	Tug No. 65.			6,941.58	6,941.58		2,890.61	9,832.19			
7067	Tug No. 67.					68.00		68.00			
7068	Tug No. 68.					1.75		1.75			
7069	Tug No. 69.				1,991.99			1,991.99			
7071	Tug No. 71.				920.56			920.56			
7072	Tug No. 72.					1,592.03		1,592.03			
7073	Tug No. 73.		15.13		84	891.82	2	976.95			
7074	Tug No. 74.				5,911.97	41.02		5,952.99			
7075	Tug No. 75.					48.82	7	48.82			
7076	Tug No. 76.				12.19	115.01		127.20			
7077	Tug No. 77.				27.83	115.01		142.84			
7078	Tug No. 78.				28.00	115.01		143.01			
7079	Tug No. 79.				3,290.26	305.40		3,595.66			
7080	Tug No. 80.		45.00	5.41	50.41	115.01		165.42			
7081	Tug No. 81.			5.41	5.41	115.01		120.42			
7082	Tug No. 82.		115.10	5.12	120.22	714.89		835.01			
7083	Tug No. 83.		6.47	5.12	11.59	41.08		52.67			
7084	Tug No. 84.				5,651.51			5,651.51			
7085	Tug No. 85.				5,651.51			5,651.51			
7086	Tug No. 86.				5,651.51			5,651.51			
7087	Tug No. 87.				5,651.51			5,651.51			
7088	Tug No. 88.				5,651.51			5,651.51			
7089	Tug No. 89.				5,651.51			5,651.51			
7090	Tug No. 90.				5,651.51			5,651.51			
7091	Tug No. 91.				5,651.51			5,651.51			
7092	Tug No. 92.				5,651.51			5,651.51			
7093	Tug No. 93.				5,651.51			5,651.51			
7094	Tug No. 94.				5,651.51			5,651.51			
7095	Tug No. 95.				5,651.51			5,651.51			
7096	Tug No. 96.				5,651.51			5,651.51			
7097	Tug No. 97.				5,651.51			5,651.51			
7098	Tug No. 98.				5,651.51			5,651.51			
7099	Tug No. 99.				5,651.51			5,651.51			
7100	Tug No. 100.				5,651.51			5,651.51			

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1923.

[First quarter.]

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expenses, including commuted rations.	Stores issued, including provisions.				Days in full commission.	Operating with reduced complements in reserve or extraordinary.
									Days out of commission.
TUGS.									
7213	Admiral Jack (ex-Underwater)		\$3.00	\$2,457.83	\$29.52	\$122.46	\$2,612.81		
7214	Algeria.	\$8,773.72		6,491.01	15,027.27	6,358.63	36,641.63		
7215	Algeria (ex-Huron).	9,321.37		14,770.95	32.90	3,366.78	27,711.20		
7216	Arasaho.	6,912.48		6,365.86	169.82	2,260.17	15,746.43		
7217	Aspinet (ex-Apache).		N 10	249.61			249.61		92
7218	Bugaduc.		24.00	7,280.64	1,263.68	12,225.02	20,779.34		
7219	Catawba (ex-Howard Green).			3,854.95	300.70	168.08	4,003.03		
7220	Cayuga.			2,196.35	321.16	304.86	2,794.91		
7221	Chemung (ex-Peachbloss).			6,126.63		221.91	6,672.70		
7222	Clark, Joseph M.								92
7223	Chlo.	306.67		392.13	16.11	70.51	785.42		
7224	Contrecoeur.	12,424.73		15,766.88	371.35	797.72	29,363.66		
7225	Corwell, Francis.								92
7226	Carrabasset (Tug No. 35).	12,403.30		16,808.18	1,379.90	3,226.27	33,800.74		
7227	Farabee.		1.03	41.25		.02	41.20		92
7228	Fortune.	7,033.01		3,954.98	73.92	1,241.00	11,041.91		
7229	Franklin (ex-Boothbay).			3,966.64	103.58	5,645.25	5,660.72		
7230	Heracles (purchased).			15.47		37.25	3,707.20		
7231	Heracles.			2,371.34	1,208.61	3,705.47	3,437.72		92
7232	Iuka (Tug No. 37).	13,153.49		15,608.18	1,465.38	3,705.47	34,932.68		
7233	Iwawa.			1,515.40	103.95	8,044.38	22,816.78		
7234	Iroquois.	16,058.19		9,894.90	338.16	319.20	17,498.80		
7235	Kalmia.	9,920.97	50.69	12,091.44	314.99	319.20	22,816.78		
7236	Kosconong.	10,422.71	142.32	13,063.93	1,691.96	4,178.07	28,238.70		
7237	Kosconong.	11,211.50		25,165.45	529.63	65.88	12,265.04		
7238	Kosconong.	16,045.96	280.07	9,317.45	511.33	12,265.04	13,665.67		
7239	Lively (ex-Active).	10,305.94	112.00	10,984.42	563.55	8,714.97	30,680.86		
7240	Manatee.			708.28	1,000.00	423.84	1,230.12		92
7241	McDougal.								92
7242	Madison.	11,717.94	78.00	2,186.54	1,471.08	3,002.07	1,603.00		
7243	Madison.			10,681.26		2,082.74	3,714.74		
7244	Madison.			1,581.26			3,714.74		

[illegible]

All tugs in commission 92 days unless otherwise shown.

1922—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
TUGS—continued.										
7071	Tug No. 71.			\$1,020.98	\$1,020.98		\$2,096.30	\$3,027.37		
7072	Tug No. 72.						\$25.00	825.00		
7074	Tug No. 74.			2,030.50	2,030.50	\$380.20	187.14	2,597.84		
7075	Tug No. 75.					\$11.75		\$11.75		92
7076	Tug No. 76.			857.58	857.58		62.34	919.92		
7079	Tug No. 79.			1,123.53	1,123.53		288.48	1,412.01		
7080	Tug No. 80.						1,334.20	1,334.20		92
7081	Tug No. 81.					21.00	8.37	1,505.86		
7082	Tug No. 82.		\$1.56	1,476.49	1,476.49	102.30	500.28	2,953.21		92
7083	Tug No. 83.			2,349.07	2,350.63		2,120.20	2,120.20		
7084	Tug No. 84.				124.98		166.55	291.53		92
7085	Tug No. 85.		28.20		28.20			28.20		
7087	Tug No. 87.						278.86	278.86		
7089	Tug No. 89.						2,591.85	2,591.85		
7095	Tug No. 95.						86.42	86.42		
7098	Tug No. 98.		76.60		546.40			546.40		
7099	Tug No. 99.			469.80						92
7100	Tug No. 100.						228.00	228.00		
7025	Umpqua.	\$9,545.04	38.08	17,174.24	26,757.36	1,104.97	325.98	325.98		92
7004	Unadilla.		48.03	1,412.95	1,460.98	39.96	6,871.38	34,733.71		
7307	Uncas.			4,092.27	4,092.27	46.35	575.04	2,075.98		
7308	Vigilant.			1,278.26	1,278.26	179.36	8,401.47	12,540.09		
7001	Wabasha.			234.25	234.25		1,468.93	1,457.62		
7026	Wabasha.	10,055.87	119.02	14,480.04	24,663.93	1,421.50	8.89	26,094.41		
7017	Wando.	6,146.31	4.70	6,834.91	12,985.92	4,477.84	3,892.70	17,356.55		92
7323	Wicomlico (ex Choctaw).			354.58	354.58		3,573.44	3,934.12		
7400	Wompatuck.		673.95	9,406.29	18,753.95	1,085.23	6,943.51	26,762.69		
7916	Wooley, James.	8,583.71		587.60	587.60	1,220.00	3,815.30	5,622.90		
Total.....		377,160.15	9,738.98	464,196.48	851,095.61	92,514.19	200,685.78	1,144,205.58		

• Credit.

• Reserve.

• Ordinary.

Ordinary.

Reserve.

Credit.

Mr. KELLEY. Are these tugs coal burners?

Mr. REED. There are 31 oil burners and 7 coal burners.

MOTOR PATROL BOATS.

Mr. KELLEY. The next are motor patrol boats.

Admiral POTTER. We had none in 1916.

Mr. KELLEY. How many did we have in 1921, and what did they cost?

Admiral POTTER. The amount for 1921 was \$243,799.63.

Mr. KELLEY. I presume there were about 150?

Admiral POTTER. Yes, sir; about 150.

Mr. KELLEY. What was the expense for the first quarter of 1922?

Admiral POTTER. \$32,860.31.

Mr. KELLEY. We are getting out of the motor patrol boats pretty well?

Admiral POTTER. Yes, sir; we have about 20.

Mr. KELLEY. At this point put in the tables for 1921 and 1922 for the patrol boats.

Admiral POTTER. Very well.

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.							
MOTOR PATROL BOAT.										
7701	Abdeck.		\$106.45	\$106.45			\$106.45		May 31, 1917	
7702	Akbar.					\$230.90	230.90		May 30, 1917	
1018	Alacrity.	\$22,498.83	4.09	22,493.92	\$2,059.94		24,553.86		Sept. 29, 1917	
7703	Alice.		20.43	20.43			20.43			
7704	Alfred II.		63.81	63.81	13.83		77.64			
1041	Anado.		42.33	42.33			42.33		Aug. 17, 1917	
1723	Anderson, Marguerite.		22.45	22.45			22.45		Aug. 16, 1917	
7707	Aratus.	219.27	9,813.96	10,033.23	2,877.73	14,577.40	27,498.36	375	Nov. 2, 1917	12
1052	Aravan II.		39.48	39.48			30.48	61	Apr. 17, 1917	
1054	Arval.					3,747.12	3,747.12			
1062	Arval.	17.43		17.43			17.43		Nov. 1, 1917	
1065	Anna Bell.		55.00	55.00			55.00			
1072	Asp.	175.40	4,558.07	4,733.47	22.44	3,427.78	8,183.69		Apr. 17, 1917	
7904	Augusta.		37.30	37.30			37.30		Aug. 11, 1917	
1080	Avalon.				2,616.00		2,616.00			
7714	Babette II.		24.80	24.80		966.23	966.23	11	July 24, 1917	
1107	Bavonne.		5.08	5.08			5.08	130	Aug. 16, 1918	
7715	Beaumont II.		107.52	107.52	228.10		333.62	12	Oct. 22, 1917	
1719	Bis and Schiott.		65.68	65.68		370.67	436.35		Mar. 14, 1918	12
1153	Broadbill.				3,723.75		3,723.75		June 27, 1918	
7155	Caliph.		31.25	31.25			31.25		Apr. 1, 1918	
1158	Calpet.						2,783.64		Aug. 24, 1917	
7720	Caprice.	2,742.64	173.90	2,742.64			173.90		May 29, 1917	
1206	Cartier.									
1210	Chinook.		2.10	2.10			2.10		July 24, 1917	
7724	Chippew.		3,100.43	3,100.43	270.28	5,942.27	8,642.96		Nov. 21, 1917	
7726	Clarendo.		5,564.70	10,653.59	24,808.88	84.00	35,614.42	12	Nov. 15, 1917	
7728	Commodore.					1,862.27	1,862.27	12	July 30, 1917	12
1235	Constance II.		329.98	329.98			329.98		May 14, 1917	
1241	Corinthian.		224.38	224.38			224.38			
7731	Cory.						75.00			
1246	Coyote.	75.00	9,942.88	9,942.88			9,942.88	50	Apr. 2, 1917	
1249	Cuyuna.									
1272	Deane.	46.20	46.20	46.20			46.20		Apr. 2, 1917	
7778	Danathan.	43.60		43.60			43.60		May 26, 1917	
1281	Decker II.						368.61		July 6, 1917	
1284	Deppan.		368.61	368.61	150.47		519.07		Aug. 24, 1918	
1286	Deppan.				150.47	24.00	174.47		May 26, 1917	

[illegible]

	P. No. 103 (ex-Raven III).			3.62	3.62	57.04	60.66	6	Oct. 5, 1917
7832	P. No. 145 (ex-Eagle).			106.74	106.74		106.25		Sept. 18, 1917
7833	P. No. 182 (Arcurus).			62.52	62.52		62.52		Aug. 18, 1917
7834	P. No. 206 (ex-Naval II).			5.93	5.93	75.00	89.93		June 25, 1917
7839	P. No. 206 (ex-Naval II).			7.62	7.62		7.72		Aug. 3, 1917
7840	P. No. 411 (Susanne).						1,163.62		Oct. 1, 1917
7842	P. No. 460 (ex-Aurora II).			319.65	319.65		319.65		Aug. 31, 1917
7849	P. No. 672 (ex-Miramar).			175.35	175.35	741.40	741.40		Aug. 9, 1917
7850	P. No. 730 (ex-Lynx II).			22.68	22.68		175.35		Aug. 30, 1917
2086	P. No. 810 (ex-Ellen).			8.00	8.00		325.00		May 18, 1917
7850	P. No. 741 (ex-Estelle).						11.50		July 31, 1917
2085	P. No. 789 (ex-Dixie).						2.23		Dec. 7, 1917
2092	P. No. 912 (ex-Borethea II).						10.95		Aug. 2, 1917
2096	P. No. 1092 (ex-Elizabeth).						10.95		Apr. 13, 1918
2098	P. No. 1209 (ex-Ellen).						57.75		Sept. 25, 1918
2914	P. No. 2373 (ex-Herreshoff 322).						71.50		
7851	Sparrow II.		.60				71.50		
2175	St. Marys.			57.75	57.75		57.75		
7853	Sturdy.			71.50	71.50		71.50		
2184	Suzanne.			81.70	81.70		81.70		June 25, 1917
2195	Tacory.		111.18				114.18		May 18, 1917
2204	Taniwha.			1,299.36	1,299.36		1,299.36		May 24, 1917
2221	Tanistula.			40.00	40.00		40.00		May 14, 1917
7941	Tarantula.			1.00	1.00		1.00		
2207	Thistle.						1.00		Dec. 26, 1917
2207	Taylor, A. B.		1,000.00				1,000.00		
2262	Toad.			23.79	23.79		23.79		
2262	Toad.						29.20		
7855	Trine.			14.43	14.43		14.43		July 14, 1917
7855	Traveler.						6.87		Aug. 28, 1917
2283	Venture.					3.42	3.42		Nov. 27, 1912
2286	Victor.		4.00				4.00		Aug. 28, 1917
2291	Virginia.			143.00	143.00		143.00		May 5, 1917
2293	Vision.			63.96	63.96		63.96		Aug. 27, 1917
7863	Weepoose.			215.71	215.71		210.79		Oct. 22, 1917
7864	Wemootah.			.66	.66		.66	21	July 7, 1917
2319	Wego.					38.90	38.90		
2332	Wendy.			3,070.40	3,070.40		3,073.65		Aug. 3, 1917
7868	Wild Goose.			4.68	4.68		22.43		June 25, 1917
7874	Zumbrota.			1,827.49	1,827.49		6,908.41		Aug. 11, 1917
	Total.		36,455.50	111,609.13	111,609.13	75,386.55	243,799.63		12
			11,378.48						

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
MOTOR PATROL BOATS.										
7707	Aramis			\$3,982.60	\$3,982.60	\$475.10	\$6,830.03	\$11,287.92		
7665	Asp.		\$295.38		295.38		69.54	294.92		* 92
7714	Bayoucan			471.90	471.90			471.90		
7715	Ble and Schiott.						3.12	3.12	92	
7724	Clarenda			475.30	475.30	83.14	4,488.24	5,044.68	92	
7727	Commodore.		359.07	4,716.04	5,073.71			5,073.71	92	
7728	Constance II.					652.68	623.52	1,281.18	92	
7743	Edgelynn			* 45.28	* 45.28	11.08		11.08		
7744	Editha			1,254.73	4,248.62	94.80	1,893.19	6,231.66	92	
7754	Fedori	\$2,906.24					11.42	11.42		
7765	Kangaroo							64.71	92	
7776	Lydia			64.71	64.71			64.71		
7778	Marja			17.86	17.86	65.87		83.73	92	
7783	Privatier		38.06	387.45	425.53	945.78	47.64	1,418.96	92	
7807	Ranier (ex-Patrol Angel)						58.40	58.40		
7813	Rockport (ex-Ajax)						* 22.07	* 22.07		
2010	Sabafo			507.17	507.17			507.17		
7824	Shark						98.30	98.30		
7829	S. P. No. 289 (ex-Navajo II)						* 75.00	* 75.00		
7874	Zumbrota			670.45	670.45	5.27	260.49	972.21	92	
	Total	2,906.24	741.78	12,453.02	16,191.04	2,340.45	14,319.82	32,860.31		

¹ All motor patrol boats out of commission 92 days unless otherwise shown.

* Reserve.

* Credit.

SPECIAL TYPE OF VESSELS.

Mr. KELLEY. Now, give us the figures for the special types of vessels for 1916.

Admiral POTTER. Of the special types we had in 1916 10, at a total expenditure of \$1,771,557.50.

Mr. KELLEY. And in 1921?

Admiral POTTER. Thirteen vessels at a total expenditure of \$5,673,923.08, and in the first quarter of 1922, 13 vessels at a total expenditure of \$2,279,682.20.

Mr. KELLEY. At that rate it would make \$9,000,000 for special types?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Are you familiar with these ships?

Admiral POTTER. Some of them I know about and some I do not. I see here a tender for the operative squadron that went down to Panama last year; that is, the *Black Hawk*; I see a repair ship and the air tenders *Shawmut* and *Aroostook*. As I say, the *Black Hawk* was a tender for the operative squadron that went to South America with us. Admiral Coontz can give you those types exactly.

Mr. REED. \$976,000 of the expenditures for the first quarter of 1922 are represented by repairs, which throws the actual rate away up?

Mr. KELLEY. That is true, and we would have to take that into account.

Mr. REED. Yes.

Admiral POTTER. And the *Columbia* is in this year's list.

Mr. KELLEY. How much did we expend on the *Columbia* before we decided to turn her back to the Shipping Board?

Admiral POTTER. For the first quarter the expenditure was \$229,767.02.

Mr. KELLEY. You do not know how much additional will be required for that ship?

Admiral POTTER. No, sir.

Mr. KELLEY. Have you any idea?

Mr. REED. We probably have the data in the office now where it could be assembled.

Mr. KELLEY. It might be of some little help to us, inasmuch as we will not have that ship again, and we would know how much was spent on her. Then put in at this point the tables as to the special types.

Admiral POTTER. Very well.

Expenditures during first two quarters of fiscal year 1922 for the "Columbia," ex-"Great Northern."

[Includes only expenditures reported to Mar. 1, 1922.]

Accrued pay.....	\$265,652.94
Miscellaneous expense, including commuted rations.....	1,220.17
Stores issued, including provisions.....	113,008.47
Total operating expenses.....	379,881.58
Equipment.....	313,532.13
Repairs and alterations to ship, including equipment.....	216,378.94
Total maintenance and operation.....	909,792.65

1916.

N. o.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
SPECIAL TYPE.											
961	Albatross.....	\$58,206.64	\$1,162.43	\$13,973.10	\$73,342.17		\$73,342.17	4,413	Jan. 7, 1890	12	
876	Baltimore.....	171,806.08	4,167.00	77,167.92	253,141.00		284,470.75	4,000	June 7, 1898	12	
908	Fish Hawk.....	24,566.36		15,021.46	39,586.82		38,590.82	3,285	Apr. 16, 1898	12	
601	Hamibal.....	101,323.91	2,856.96	43,236.27	147,419.14		183,010.92	4,000	June 7, 1898	12	
910	Lebanon.....	34,131.66	134.90	36,400.12	70,666.68	35,591.78	91,161.41	3,285	Apr. 16, 1898	12	
602	Lebanon.....	102,068.84	4,765.45	39,313.35	146,147.64	27,966.06	174,113.70	4,023	May 21, 1898	12	
852	Prometheus.....	180,337.64	5,633.30	81,725.32	267,718.46	35,283.61	273,002.07	12,585	Jan. 15, 1910	12	
875	San Francisco.....	171,605.44	4,968.50	67,833.20	244,437.14	89,202.10	333,639.24	4,083	Aug. 21, 1911	12	
851	Vestal.....	207,120.09	6,420.78	75,710.13	289,251.00	16,719.81	305,970.81	12,585	Oct. 4, 1909	12	
900	Vesuvius.....			2,650.29	2,650.29	10,605.32	13,255.61	930	June 7, 1890	12	
Total.....		1,021,192.26	30,141.32	433,031.36	1,504,364.94	267,192.56	1,771,557.50				
Equipage.....							442,889.38				
Total.....							2,214,446.88				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and rationals.	Stores issued, including provisions and medical stores.							
	SPECIAL TYPE.										
8815	Aroostook (ex-Bunker Hill)	\$712,228.76	\$16,550.30	\$199,095.49	\$927,874.55	\$37,008.01	\$65,344.62	\$1,030,228.18	3,900	Jan. 7, 1918	12
8801	Baltimore	298,622.66	11,983.57	178,444.80	489,031.03	42,456.21	91,407.40	622,864.64	4,413	Jan. 7, 1920	12
8817	Black Hawk	656,193.63	25,798.03	464,281.14	1,146,272.80	120,748.95	122,970.43	1,390,992.18	13,500	May 15, 1918	12
1157	Canadagua		270.30	37,157.64	37,427.94	9,319.74	7,862.33	64,639.91	7,620	Mar. 2, 1918	
1178	Canonicus (ex-El Sid)			22,745.19	22,745.19		10,918.04	33,663.23	7,620		
1475	Housatonic		5.18	3,020.87	3,026.05		31,342.72	43,756.62	7,620	Jan. 26, 1918	
1992	Roanoke (ex-Eldia)			43,496.08	43,496.08	9,398.05	32,198.98	84,731.36	4,083		
8806	San Francisco	354,363.98	7,647.45	186,368.35	548,399.78	47,206.39	75,029.84	670,636.01	5,150	Nov. 15, 1890	12
2044	Saranac (ex-Hamilton)			16,198.62	16,198.62		597.77	16,796.39	3,800	Aug. 9, 1918	
7831	Shawmut (ex-Massachusetts)	432,956.31	12,850.78	211,099.49	656,906.58	42,180.27	140,216.31	839,262.16	3,800	Jan. 7, 1918	
8807	Vestal	492,879.44	18,958.74	216,034.86	727,873.04	60,620.02	57,102.76	845,566.62	12,585	Oct. 4, 1909	12
8808	Vesuvius		974.01	20.11	994.12	1.75	2,562.93	3,548.80	930		
8894	Wright, A. Z.			552.00	552.00	11,466.73	26,155.85	38,177.58	14,240		
	Total	2,947,244.78	96,018.36	1,578,484.54	4,620,747.68	390,458.42	663,716.98	5,673,923.06			

1923.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipping.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SPECIAL TYPE.										
8815	Aroostook (ex-Bunkerhill).	\$294,939.15	\$2,156.64	\$44,832.51	\$331,928.30	\$7,490.29	\$41,304.40	\$390,722.99		
8801	Baltimore.	96,190.18	2,146.01	36,379.97	134,716.16	780.99	5,381.58	140,878.73		
8817	Black Hawk.	124,656.95	3,736.30	55,332.88	183,726.13	8,449.15	3,422.52	195,600.80		
1157	Canandaigua.						182,310.01	182,310.01		
1178	Canonicus (ex-El Sid).					90.00	185,725.45	185,816.45		
8897	Columbia.	79,735.48	51.26	81,301.87	161,088.61	28,255.86	40,422.55	229,767.02		
1475	Eousatonic.						176,199.85	176,199.85		
1922	Roanoke (ex-Eldis).						183,195.51	183,195.51		
8806	San Francisco.	81,032.32		14,416.08	95,448.40	8,232.38	183,195.51	104,090.71		
2044	Saranac (ex-Hamilton).	113,488.73	1,825.79	50,401.71	165,716.23	10,605.96	396.34	178,386.04		
7831	Shawmut (ex-Massachusetts).	105,343.59	4,063.37	40,335.17	149,762.13	3,136.77	3,602.91	155,501.81		
8807	Vestal.				196.80	13,348.15	153,033.67	168,578.62		
8894	Wright, A. Z.									
	Total.....	885,390.40	13,999.37	323,196.99	1,222,585.76	80,389.55	975,705.99	2,279,682.20		

* Credit.

¹ All special type out of commission 92 days unless otherwise shown.

1071.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
	SPECIAL NONPOWERED.										
1211	Chittenden, John W.							\$527.79			
8819	Christine							131.14			
8839	Green, William F.							20.24			
1450	The Harvey Queen			\$600.67	\$600.67			600.67		Sept. 28, 1917	
8828	McCurdy, Robert H.			2.38	2.38			2.38		July 18, 1918	
8831	Raymond		\$3.50		3.50			3.50			
2120	Sance			6,271.61	6,271.61			9,631.20			
8824	Samour, Henry					\$121.11	3,238.48	30.19			
8836	Superior					39.19		39.19			
	Total		3.50	6,984.66	6,988.16	199.49	3,928.65	11,094.30			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SPECIAL TYPE.										
8815	Arctostook (ex-Bunkerhill).	\$284,939.15	\$2,156.64	\$44,832.51	\$331,928.30	\$7,490.29	\$41,304.40	\$380,722.99		
8601	Baltimore.	96,190.18	2,146.01	36,379.97	134,716.16	780.99	5,381.58	140,878.73		
8617	Black Hawk.	124,656.96	3,736.30	56,332.88	183,726.13	8,449.15	3,422.52	195,600.80		
1157	Canandaigua.						182,310.01	182,310.01		
1178	Canonius (ex-El Sid).					90.00	185,725.45	185,816.45		
8897	Columbia.	79,735.48	51.26	81,301.87	161,088.61	28,255.86	40,422.55	229,767.02		
1475	Housatonic.						176,199.86	176,199.86		
1892	Roanoke (ex-Eldia).						183,195.51	183,195.51		
8606	San Francisco.	81,032.32		14,416.06	95,448.40	8,232.38	409.80	104,090.71		
2044	Saranac (ex-Hamilton).	113,498.73	1,825.79	50,401.71	165,716.23	10,605.96	2,063.86	178,388.04		
7831	Shawmut (ex-Massachusetts).	105,343.59	4,063.37	40,335.17	149,762.13	3,136.77	3,602.91	156,901.81		
8607	Vestal.			196.80	196.80	13,348.15	153,033.67	163,578.62		
8694	Wright, A. Z.									
	Total.	885,396.40	13,999.37	323,196.99	1,222,585.76	80,389.55	979,703.89	2,279,682.20		

* Credit.

¹ All special type out of commission 92 days unless otherwise shown.

ACMA.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
	SPECIAL NONPOWERED.										
1211	Chittenden, John W.							\$527.79			
8819	Christine							131.14			
8839	Green, William F.							26.24			
1450	The Harvest Queen				\$600.67			600.67		Sept. 28, 1917	
8928	McCurdy, Robert H.				2.38			2.38		July 18, 1918	
8831	Raymond				3.50			3.50			
2120	Seneca	\$3.50			6,271.61	\$121.11	3,238.48	9,631.20			
8834	Samour, Henry					39.19		39.19			
8836	Superior					39.19		39.19			
	Total		3.50	6,984.66	6,988.16	199.49	3,928.65	11,094.30			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipping.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SPECIAL TYPE.										
8815	Arctostock (ex-Bunkerhill)	\$284,939.15	\$2,156.64	\$44,832.51	\$331,928.30	\$7,490.29	\$41,304.40	\$390,722.99		
8801	Baltimore	95,190.18	2,146.01	36,379.97	134,716.16	7,800.99	5,381.58	140,878.73		
8817	Black Hawk	124,659.96	3,736.30	55,332.88	183,726.13	8,449.15	3,422.52	195,600.90		
1157	Canandaigua						162,310.01	162,310.01		
1178	Canonicus (ex-El Sid)					90.00	185,725.45	185,816.45		
8897	Columbia	79,735.48	51.26	81,301.87	161,088.61	28,255.86	40,422.55	229,767.02		
1476	Houston						176,199.86	176,199.86		
1902	Roanoke (ex-Eldia)						183,195.51	183,195.51		
8806	San Francisco	81,032.32		14,416.08	95,448.40	8,232.38	104,090.58	104,090.71		
2044	Saranac (ex-Hamilton)						386.34	386.34		
7081	Shawmut (ex-Massachusetts)	113,498.73	1,825.79	50,401.71	165,716.23	10,605.96	2,063.85	178,386.04		
8807	Vestal	105,343.59	4,063.37	40,355.17	149,762.13	3,136.77	3,602.91	156,901.81		
8894	Wright, A. Z.			196.80	196.80	13,348.15	163,053.67	166,578.62		
	Total	885,398.40	13,999.37	323,196.99	1,222,585.76	80,390.55	976,705.99	2,279,682.20		

¹ All special type out of commission 92 days unless otherwise shown.

* Credit.

No.	Name of vessel.	Accrued pay.	TABLE C.			Total operating expenses.	Equipage.	Repairs and alterations to ships including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
			Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.								
	SPECIAL NONPOWERED.											
1211	Chittenden, John W.											
8819	Christine							\$327.79	\$527.79			
8839	Green, William F.							131.14	131.14			
1450	The Harvest Queen							29.24	29.24			
8828	McCurdy, Robert H.					\$690.67			690.67		Sept. 28, 1917	
8831	Raymond					2.38			2.38		July 18, 1918	
2120	Seneca		\$3.50			3.50			3.50			
8834	Senour, Henry					6,271.61		\$121.11	9,631.20			
8836	Superior							39.19	39.19			
	Total		3.50		6,964.66	6,968.16	199.49	3,528.65	11,094.30			

NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS..

Mr. KELLEY. The next are the naval overseas transportation ships.

Admiral POTTER. In 1916 we did not have any.

Mr. KELLEY. What did we spend on these in 1921?

Admiral POTTER. In 1921 the total charges for the naval overseas transportation service ships were \$443,803.

Mr. KELLEY. There is a list above that; that is a supplemental list. I think that all of the totals appearing on pages 142, 143, and 144 should be added.

Admiral POTTER. These are the figures for the straight ships, \$1,794,740.54.

Mr. KELLEY. What kind of ships are they? Do they have any guns on them?

Admiral POTTER. I think they had some guns mounted during the war for defense against submarines, and that sort of thing.

Mr. KELLEY. But they are not fighting ships at all?

Admiral POTTER. They are supply ships and transports that were being operated across the ocean, and I think the bulk of the charges in here, if not all of them, represent delayed settlements on account of the vessels. I notice there is only \$13,000 for pay in that whole group.

Mr. KELLEY. Then what is the total for the first three months of 1922?

Admiral POTTER. \$98,033.11.

Mr. KELLEY. What has become of the rest of these ships?

Mr. REED. They have been turned back to the owners.

Mr. KELLEY. This list, you think, is practically a hangover and it will come out almost entirely next year?

Mr. REED. Yes, sir.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.	Stores issued, including provisions and medical stores.							
NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS.											
1003	Absaroka.....		\$3.89	\$3.89	\$3.89			\$3.89	12,397	Sept. 17, 1918	.....
1020	Alaskan.....		153.66	160.46	160.46			4,224.15	19,419	Mar. 23, 1918	.....
1031	Alloyway (ex-Shutaka).....	\$6.80					\$4,063.69	3,059.13	12,600	July 11, 1918	.....
1039	American.....		11,899.49	11,899.49	11,899.49		3,226.86	12,129.35	13,000	May 25, 1918	.....
1044	Aniwa.....		13.47	13.47	13.47			13.47	.....	.....	.....
1047	Antilla.....		1,180.53	1,180.53	1,180.53		9,239.13	10,419.66	.....	May 20, 1918	.....
1056	Arponne.....							4,883.89	.....	Oct. 19, 1918	.....
1057	Arizona.....	84.03	425.71	509.74	509.74		30,690.50	31,200.24	19,419	Aug. 1, 1918	.....
1074	Aussable.....		210.62	210.62	210.62		18,896.49	19,107.11	.....	Sept. 26, 1918	.....
1094	Banago.....		94.53	94.53	94.53			94.53	.....	Sept. 28, 1918	.....
1117	Berwyn.....	4,010.10	8.00	4,018.10	4,018.10			4,018.10	10,570	Sept. 28, 1918	.....
1141	Buiford.....	560.70	6,697.53	7,228.23	7,228.23	371.30	28,282.21	28,943.16	8,583	May 14, 1918	.....
1152	California.....		660.95	660.95	660.95			6,800.22	.....	Sept. 10, 1918	.....
1176	Canibus.....	17.00	6,580.53	6,597.53	6,597.53	45.00	157.63	6,784.33	13,910	June 18, 1918	.....
1179	Canton (ex-Hercules).....		6.00	6.00	6.00		141.80	6.00	6,200	June 18, 1918	.....
1180	Cape Henry.....		10,836.01	10,836.01	10,836.01			13,285.80	10,505	Oct. 26, 1918	.....
1182	Cape May.....						2,349.79	192.47	10,469	Oct. 26, 1918	.....
1184	Cape Lookout.....						1,772	100.72	10,505	July 26, 1918	.....
1185	Cape Romaine.....						1,685.95	1,854.47	3,800	Dec. 27, 1917	.....
1190	Carolinian.....	102.45	208.71	311.16	311.16		16,531.75	1,997.11	9,500	Sept. 16, 1918	.....
1191	Carillo.....	13.07		22.87	22.87			22.87	8,060	July 13, 1918	.....
1194	Cauto.....		22.87	22.87	22.87		18.84	22,691.17	16,100	Oct. 4, 1918	.....
1196	Challenger.....		22,691.17	506.40	506.40			525.24	11,300	June 14, 1918	.....
1199	Charlton Hall.....		506.40	14.82	14.82			7,927.48	7,523	Mar. 25, 1918	.....
1201	Chartham (ex-Margaret).....		7,927.48	7,927.48	7,927.48			2,891.37	7,160	Sept. 19, 1918	.....
1212	Choctaw.....							3.92	7,050	Dec. 5, 1918	.....
1217	Clare.....		3.92	3.92	3.92	26.14	111.16	1,113.58	9,700	May 9, 1918	.....
1223	Cohasset.....		485.94	505.84	991.78	10.64		4,393.56	7,700	Mar. 26, 1918	.....
1237	Corozal.....		1.67	4,393.56	4,393.56	9.60		61.12	.....	.....	.....
1242	Crafter Hall.....		19.02	32.50	51.52			2,727.60	14,375	July 29, 1918	.....
1246	Crowell, Peter H.....							204.04	16,400	Oct. 23, 1918	.....
1247	Cubore.....							108.16	10,562	Oct. 23, 1918	.....
1261	Dakotan.....							12,198.68	10,000	Aug. 30, 1918	.....
1265	Dakotan.....										.....
1268	Defiance.....		56.66	56.66	56.66	15.75	2,727.60	219.79	14,375	.....	.....
1293	Democracy (ex-Jupiter).....		265.15	265.15	265.15	51.50		108.16	16,400	.....	.....
1294	Durham (ex-Sherman).....		11,508.00	11,508.00	11,508.00	1.80	690.68	12,198.68	10,000	Aug. 30, 1918	.....

1921—Continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous, including expense, including provisions and medical stores.							
NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS—Contd.										
1301	Eastern Chief.		\$5.96	\$150.66		\$6,640.28	\$6,640.28	9,600	Sept. 27, 1918	
1302	Eastern Light.					165.62	165.62			
1303	Eastern.					23.38	23.38	12,105	Nov. 12, 1918	
1304	Eastern Queen.		24.00	1,568.40		1,892.40	1,892.40	12,105	Oct. 20, 1918	
1305	Eastport.			171.44		7.75	171.44		Oct. 18, 1918	
1306	Edenton.		7.75							
1307	Edgewood.		21.80	21.80				13,627	Dec. 5, 1918	
1308	Edith.					242.62	242.62			
1309	El Capitan.			16,828.95	\$1,186.39	30.91	30.91	7,335	Oct. 1, 1918	
1310	El Comodoro.					105.03	105.03	10,200	Mar. 27, 1918	
1311	El Comodoro.					356.22	356.22	8,785	Mar. 30, 1918	
1312	El Comodoro.					30.45	30.45		Aug. 28, 1918	
1313	El Comodoro.					91.40	91.40		July 29, 1918	
1314	El Comodoro.					97.50	97.50		Aug. 3, 1918	
1315	El Comodoro.					4,321.00	10,032.91	8,040	Sept. 21, 1918	
1316	El Comodoro.		323.90	5,731.31		347.64	400.97	12,163	Feb. 10, 1918	
1317	El Comodoro.			53.33		4,641.36	4,650.36	13,130	Nov. 15, 1918	
1318	El Comodoro.				9.00		1,694.40	9,000	Sept. 19, 1918	
1319	El Comodoro.					2,662.91	13,942.44	12,600	June 22, 1918	
1320	El Comodoro.					839.86	1,393.95		Oct. 19, 1918	
1321	El Comodoro.					337.35	2,555.51			
1322	El Comodoro.				14.93		3,645.88	12,163	July 22, 1918	
1323	El Comodoro.					589.42	2,278.21	7,930	May 21, 1918	
1324	El Comodoro.					3.42	122.67	10,305	Dec. 23, 1917	
1325	El Comodoro.					1,435.73	1,616.33	12,000	Aug. 10, 1918	
1326	El Comodoro.					704.75	9.66	10,562	Nov. 6, 1918	
1327	El Comodoro.					105.00	1,375.05	6,000		
1328	El Comodoro.					507.40	702.40	16,000	Nov. 16, 1918	
1329	El Comodoro.					3,035.93	3,035.93	16,900	Dec. 12, 1918	
1330	El Comodoro.					96.45	96.45	15,942	Oct. 17, 1918	
1331	El Comodoro.					225.67	225.67	14,375	Feb. 12, 1918	
1332	El Comodoro.					6,305.50	2,394.52	8,862.02	Apr. 12, 1918	
1333	El Comodoro.					149.50	102.00	4,474.20	Sept. 30, 1918	
1334	El Comodoro.					100.73	107.68	12,200		
1335	El Comodoro.					702.40	702.40			
1336	El Comodoro.					472.35	472.35	5,850	Aug. 30, 1918	
1337	El Comodoro.					36,114.97	36,114.97	5,400	May 3, 1918	

Kareean	1357	4,245.99	4,245.99	4,245.99	942.00	472.43	5,680.42	8,700	Sept. 18, 1918
Karlow	1359	2,240.26	2,240.26	2,240.26	122.15	1,092.78	2,240.26	6,300	Nov. 17, 1918
Kerow'ee	1363	-	5.00	-	-	-	1,184.68	-	Oct. 17, 1918
Kerwood	1365	-	-	-	-	-	1,978.68	-	Nov. 5, 1918
Kiowa	1368	1,353.58	1,481.00	3,324.67	-	-	3,224.67	4,500	Feb. 28, 1918
Lake Arhur.	1369	-	48.40	48.40	-	-	2,265.77	-	Sept. 17, 1918
Lake Benbow.	1383	26.35	48.25	37.60	-	1,237.32	1,451.08	-	Aug. 17, 1918
Lake Berdan.	1385	-	18.12	18.12	-	649.08	1,478.68	-	Sept. 24, 1918
Lake Blanchetier.	1387	102.19	208.71	102.19	-	602.01	607.20	-	Aug. 10, 1918
Lake Bloomington.	1388	-	208.71	208.71	-	44.37	704.80	4,500	Sept. 2, 1918
Lake Borgeine.	1388	159.47	208.71	208.71	-	180.49	308.18	-	Sept. 2, 1918
Lake Bridge.	1388	53.94	7,957.81	7,957.81	-	34,038.38	8,194.24	4,300	Feb. 17, 1918
Lake Carers.	1390	-	3,134.41	3,134.41	-	1,352.49	34,172.79	-	Oct. 17, 1918
Lake Catherine.	1391	29.25	3,144.45	3,144.45	-	4,528.19	4,528.19	-	Oct. 4, 1918
Lake Champlain (ex-War Chant)	1392	-	2,943.62	2,943.62	-	-	4,300	4,300	Jan. 24, 1918
Lake Charlotte	1393	7.92	-	7.92	-	494.92	507.84	4,300	Oct. 17, 1918
Lake Clear.	1394	-	87.55	87.55	9.37	921.98	1,017.90	-	Nov. 17, 1918
Lake Conesus.	1395	92.44	98.76	191.20	-	3,668.20	3,857.40	-	Nov. 15, 1918
Lake Crescent.	1396	3,879.02	1,425.72	5,304.74	-	1,089.20	6,383.94	-	Oct. 19, 1918
Lake Damita.	1397	306.63	208.71	315.34	-	145.50	968.54	-	Aug. 2, 1918
Lake Dancely.	1398	-	3,227.10	3,227.10	-	15,532.07	3,372.60	4,300	Oct. 29, 1918
Lake Daraga.	1399	75.38	75.38	870.63	-	1,399.86	2,270.49	4,300	July 27, 1918
Lake Dymet.	1600	170.04	700.99	878.58	-	491.66	1,370.24	-	Sept. 10, 1918
Lake Eder.	1601	6.45	872.13	878.58	-	842.95	1,615.36	-	Sept. 26, 1918
Lake Eckhardt.	1602	111.81	46.87	158.68	8.02	681.84	840.52	-	Sept. 4, 1918
Lake Eliko.	1603	-	764.39	764.39	-	842.95	2,866.40	4,300	Sept. 26, 1918
Lake Elizabeth.	1604	-	21.74	29.25	-	2,840.15	2,866.40	-	Jan. 17, 1918
Lake Elsinore.	1604	7.51	2,200.82	2,200.82	-	3,365.28	3,457.72	-	Sept. 23, 1918
Lake Erie (ex-War Bear)	1605	-	122.44	122.44	-	1,715.17	3,180.67	4,100	Jan. 15, 1918
Lake Fernwood.	1606	11.57	1,348.77	1,960.34	105.16	1,457.46	1,743.15	-	July 31, 1918
Lake Forest (ex-War Fox)	1607	183.51	102.18	285.69	-	1,364.32	3,364.32	-	Aug. 22, 1918
Lake Frances.	1609	127.91	208.71	336.62	-	2,562.09	2,562.09	-	Sept. 24, 1918
Lake Gakona.	1610	-	108.71	108.71	-	277.63	277.63	-	Oct. 10, 1918
Lake Garza.	1611	-	277.63	277.63	-	198.67	255.19	-	Sept. 6, 1919
Lake Gasper.	1612	-	56.62	56.62	-	1,447.17	2,163.73	-	Sept. 22, 1918
Lake Gedney.	1613	-	56.62	56.62	-	1,095.92	1,491.96	-	Aug. 10, 1918
Lake Geneva.	1614	7.21	326.50	716.56	-	3,285.74	6,523.68	2,080	Jan. 11, 1918
Lake Harney.	1615	390.06	785.62	785.62	-	4,450.40	506.92	-	Nov. 25, 1918
Lake Harris.	1616	-	86.96	396.04	-	2,265.27	380.29	-	Sept. 10, 1918
Lake Helen.	1617	309.08	86.96	396.04	-	4.21	265,177.08	-	Sept. 10, 1918
Lake Huron (ex-War Honor).	1618	812.18	2,415.76	3,227.94	-	265,156.32	3,538.08	-	Oct. 2, 1918
Lake Larga.	1619	-	56.52	56.52	-	1,080.70	1,523.11	-	Nov. 29, 1918
Lake La Sang.	1620	304.89	81.19	396.08	-	50.07	3,147.67	4,400	Jan. 21, 1918
Lake Lemando.	1621	6.22	114.54	120.76	-	157.53	7,283.24	4,900	Feb. 19, 1918
Lake Lillian.	1622	6.27	521.54	527.81	-	1,295.04	844.65	-	Oct. 17, 1918
Lake Mary.	1623	-	472.41	472.41	-	327.58	583.50	-	Oct. 5, 1918
Lake Michigan.	1624	24.42	2,923.34	2,947.76	198.91	2,226.18	8,880.53	-	Sept. 4, 1918
Lake Moor (ex-Maski).	1625	-	50.07	50.07	-	57.00	6,522.04	4,750	Sept. 7, 1918
Lake Moor.	1626	-	7,135.71	7,135.71	-	157.53	6,522.04	-	Jan. 12, 1918
Lake Ontario.	1626	-	450.39	450.39	-	157.53	6,522.04	-	Jan. 12, 1918
Lake Osweya.	2627	268.92	181.47	7,135.71	-	157.53	6,522.04	-	Jan. 12, 1918
Lake Petisco.	1628	3.63	252.29	255.92	-	327.58	6,522.04	-	Jan. 12, 1918
Lake Pepin.	1629	1,426.62	5,227.53	6,654.35	-	57.00	6,522.04	-	Jan. 12, 1918
Lake Pewankee.	1630	2.18	45.68	47.86	-	57.00	6,522.04	-	Jan. 12, 1918
Lake Placid.	1630	26.99	5,766.22	5,766.22	-	755.83	6,522.04	-	Jan. 12, 1918

1921—Continued.

No.	Name of vessel.	Title C.		Stores issued, including provisions and medical stores.	Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Miscellaneous expense, including provisions and medical stores.	Accrued pay.								
NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS contd.											
1632	Lake Pleasant			\$83.18	\$83.18		\$30.20	\$113.38		Sept. 8, 1918	
1633	Lake Port (ex-Penguin)			5,222.57	5,222.57		98.11	5,440.54	4,400	Jan. 21, 1918	
1636	Lake Shore (ex-War Shell)	\$70.12		11,921.15	11,921.15	\$58.74	1,437.03	13,358.18	4,400	Jan. 11, 1918	
1637	Lake Slide	804.46		1,094.31	1,094.31		257.82	2,260.59	4,400	Jan. 23, 1918	
1638	Lake Silver	68.12		78.13	3,785.10	97.00		3,785.10		Aug. 15, 1918	
1639	Lake St. Clair		\$3,640.50	45.40	89.90		1,759.06	1,948.96		Oct. 31, 1918	
1640	Lake St. Regis			302.56	2,249.64		208.66	3,499.22		Nov. 17, 1918	
1641	Lake Simcoe			2,225.84	6,631.07		1,026.06	26,284.01	4,300	Nov. 30, 1918	
1642	Lake Superior (ex-War Bayonet)			5,573.14	97.76	9.37	2,760.07	2,867.20	4,800	Oct. 19, 1918	
1643	Lake Tular			70.25	144.00			144.00		do	
1644	Lake View			10,365.77	10,370.08			10,370.08	4,700	Feb. 23, 1918	
1645	Lake Weston		4.31	37.25	37.25		615.40	637.49	4,880	Nov. 23, 1918	
1646	Lake Winnebago			222.00	222.00			222.00		Aug. 6, 1918	
1647	Lake Winnebago			17.39	17.39		499.93	517.39	1,400	Nov. 23, 1918	
1648	Lake Worth		21.00	8,932.01	8,932.01		352.82	9,451.94	4,400	Dec. 13, 1917	
1649	Lake Yalarn			2,446.61	2,467.64		80.90	2,820.56	4,480	Feb. 26, 1918	
1650	Lake Yalarn			22.69	22.69						
1651	Lake Ypsilanti		17.37	46.37	163.74		2,973.66	3,037.40		June 10, 1918	
1652	Lake Ypsilanti			142.97	142.97	14.93	2,076.20	2,219.24		Nov. 19, 1918	
1653	Lake Ypsilanti		50.70	187.67	187.67		7,592.47	7,780.14	3,900	Nov. 19, 1918	
1654	Lake Ypsilanti			706.12	706.12		1,113.54	1,819.66	13,130	July 2, 1918	
1655	Liberty			7.00	7.00	23.64	18,182.37	18,199.37		Oct. 7, 1918	
1656	Luckenbach, Edgar F.			218.90	218.90		52,086.04	52,304.94	15,963	July 29, 1918	
1657	Luckenbach, Edgar F.		7.00	56,745.81	56,745.81		72,442.16	129,187.97	15,650	Aug. 9, 1918	
1658	Luckenbach, Frederick			53.78	788.20		1,953.88	2,738.78		Oct. 5, 1918	
1659	Luckenbach, Julia			391.40	397.70		6,322.29	6,720.99	16,333	Aug. 13, 1918	
1660	Luckenbach, Katrina			15.75	15.75		31.55	47.30	16,000	May 16, 1918	
1661	Luckenbach, K. I.			122.00	122.00		11,556.33	11,679.13	16,000	Aug. 9, 1918	
1662	Luckenbach, Walter A.			130.06	130.06		17,264.39	17,394.45	17,170	June 9, 1918	
1663	Luckenbach, Walter A.			106.21	106.21		762.29	868.50	8,900	Aug. 19, 1918	
1664	Luckenbach, Walter A.			106.21	106.21			106.21		Dec. 4, 1917	
1665	Major Wheeler			3,820.07	3,820.07		2,497.00	6,317.07	2,400	Oct. 7, 1918	
1666	Major Wheeler			262.06	262.06		2,000.75	2,262.81	2,400	Oct. 7, 1918	
1667	Major Wheeler			2,940.30	2,940.30			2,940.30	12,000	June 9, 1918	
1668	Major Wheeler			31.82	31.82			31.82		June 9, 1918	
1669	Major Wheeler			106.21	106.21			106.21		June 9, 1918	

1752	Mercer.....	17.15	17.15	40.98	3,542.37	17.15	13,130	Jan. 16, 1919
1753	Mexican.....	36.76	36.76		3,620.11	19,550	Dec. 23, 1917	
1754	Minnesota.....	205.43	205.43		2,005.76	2,301.19	Aug. 30, 1918	
1755	Moldgaard.....	405.21	47,839.40		106,966.12	154,805.52	Oct. 9, 1918	
1756	Monte Carlo.....				7.06	7.06	Dec. 9, 1918	
1757	Montenegro.....	6,647.45	6,647.45	1.18	1,530.25	10,562	Oct. 16, 1918	
1758	Mount Shasta.....	19,033.31	19,033.37		1,972.78	2,866.09	Aug. 16, 1918	
1759	Munaltres.....	2,897.69	2,897.69	29.88	34.11	19,097.56	Jan. 14, 1918	
1760	Munaltres.....	18,803.38	18,803.38	17.90	263.68	10,400	Sept. 17, 1918	
1761	Mundella.....	1,577.11	1,577.11	10.35	23.52	2,921.51	Apr. 27, 1917	
1762	Mundellies.....	2,957.19	2,957.19	6.38	131.01	18,813.73	Dec. 17, 1917	
1763	Munsono.....	2,864.16	2,864.16			7,345	July 26, 1918	
1764	Munson, Walter D.....	93.03	93.03			3,091.20	Apr. 19, 1918	
1765	Munwood.....	133.29	133.29			133.29	Oct. 26, 1918	
1766	Nai 'a.....	78.40	78.40			78.40	Nov. 4, 1918	
1767	Nantahala.....	68.10	68.10	24.00	1,077.09	1,032.99	Nov. 16, 1918	
1768	Neponset.....	54	54			12,250	Oct. 28, 1918	
1769	Newburgh.....	184.49	184.49		3,564.68	12,400	Dec. 31, 1918	
1770	Norlina.....	911.07	911.07		3,810.37	3,664.68	May 1, 1918	
1771	Oregonian.....	5.53	5.53		4,479.32	316.99	Aug. 17, 1918	
1772	Ozama.....	3,040.26	3,816.90		4,484.85	4,484.85	Aug. 17, 1918	
1773	Ozaukee.....	211.03	211.03		3,58	3,820.48	Dec. 6, 1917	
1774	Ozette.....	13.78	13.78			211.03	Sept. 30, 1918	
1775	Pace, W. N.....	5.00	5.00			13.78		
1776	Panama.....	168.25	168.25		2,832.51	2,837.51	Dec. 18, 1918	
1777	Panuco.....	2,779.47	2,779.47		313.57	168.25	Aug. 12, 1918	
1778	Pasadena.....				3,764.66	3,123.04	Sept. 13, 1918	
1779	Pascagoula.....					3,764.66	May 13, 1918	
1780	Peerless.....	71.00	71.00			12,570	Oct. 4, 1918	
1781	Philippines.....			14.93	17.66	71.00	Dec. 8, 1918	
1782	Phoenix Bridge.....					42.69		
1783	Playe.....	5.75	323.60			323.60		
1784	Pleades.....	46.42	170.00			170.00	Dec. 18, 1918	
1785	Plymouth.....		6.39			12.14	Aug. 27, 1918	
1786	Radnor.....	155.50	155.50		445.16	491.58	Aug. 2, 1918	
1787	Saccharappa.....	6,944.68	6,944.68		5,571.79	5,730.29	Aug. 2, 1918	
1788	Sacuta.....	35.25	60.70		7,679.03	11,623.71	May 13, 1918	
1789	Sac City.....	11.00	44.60			60.70		
1790	Sagadahoc.....	4,217.24	11.00			44.60	Mar. 1, 1918	
1791	Saint Francis.....	226.98	4,217.24		7.31	11.00	July 9, 1918	
1792	Santa Barbara.....	2,136.39	226.98		2,892.64	4,224.58	June 25, 1918	
1793	Santa Leonora.....		2,136.39	57.14		13,320	Apr. 20, 1918	
1794	Santa Julia.....	39.31	39.31			8,900		
1795	Santa Olivia.....	156.14	142.06		7,293.41	7,332.72	Aug. 12, 1918	
1796	Santa Paula.....	83.25	83.25		2,037.67	8,890	July 1, 1918	
1797	Santa Rosalia.....	80.32	1,132.35		4,533.65	2,199.73	Aug. 17, 1918	
1798	Santiago.....	102.90	1,132.35			4,616.90	Aug. 17, 1918	
1799	Sasuma.....	5,678.00	5,678.00		487.71	1,132.35	June 11, 1918	
1800	Savannah.....	3,038.20	3,038.20			590.61	do.	
1801	Savannah.....					7,792		
1802	Savannah.....					5,678.00	Oct. 1, 1918	
1803	Savannah.....					5,678.00	Sept. 14, 1918	
1804	Savannah.....					9,769	Aug. 19, 1918	
1805	Savannah.....					7.06	Dec. 1, 1917	
1806	Savannah.....					2,751.92		
1807	Savannah.....					4,450		

2318	Western Knight	18.19	18.19	10.40	520.38	18.19	12,800	June 30, 1918
2319	Western Light	1.45	1.45		520.38	12.25	12,185	Aug. 17, 1918
2320	Western Maid				4,383.91	520.38	12,185	Aug. 17, 1918
2321	Western Ocean	78.26	14,276.79			18,892.76	12,185	June 16, 1918
2322	Western Plains	22,001.47	22,001.47			22,001.47	12,185	Oct. 17, 1918
2323	Western Sea		123.56		677.91	401.47	12,200	June 20, 1918
2324	Western Spirit					474.60	12,185	July 30, 1918
2325	Westford	7,599.10	7,599.10		46.83	7,645.93	12,185	July 7, 1918
2326	West Gale	35.00	63.00			63.00	12,186	Aug. 21, 1918
2327	West Gate	28,141.37	28,141.37		45.44	28,186.81	12,185	Mar. 29, 1918
2328	West Gotomaska	22.86	22.86			22.86	12,225	Aug. 7, 1918
2329	West Grama	261.94	261.94			261.94	12,191	June 15, 1918
2330	West Haven		29.61		2,744.70	2,806.70	12,225	Aug. 17, 1918
2331	West Hobomac				6,177.42	6,968.78	12,100	Aug. 29, 1918
2332	West Hoshokle	95.46	95.46	1,463.15		1,463.15	12,255	Sept. 17, 1918
2333	West Humhaw	368.57	368.57			368.57	12,100	May 22, 1918
2334	West Kyska	41,579.61	8,541.75		8,102.83	16,644.58	12,200	Nov. 22, 1918
2335	West Lianga	111.52	42,986.05		375.43	43,361.48	12,191	Oct. 1, 1918
2336	West Loquassuck	9,550.14	111.52		2,597.38	2,708.90	12,225	Oct. 15, 1918
2337	West Madaket	17,325.83	9,550.14			31,965.37	12,225	Nov. 14, 1918
2338	West Mahomet	167.41	30,830.69	281.82	852.46	28,213.69	12,225	Oct. 29, 1918
2339	West Mead	17,806.25	17,806.25	9.99	7.54	245.62	12,175	May 21, 1918
2340	West Modus	245.62	245.62			245.62	12,205	May 22, 1918
2341	West Mount	20,472.07	20,472.07		7.87	20,479.94	12,150	Aug. 8, 1918
2342	West Over	43.65	43.65		1,327.54	2,165.09	12,000	Aug. 9, 1918
2343	West View	837.55	837.55		22,410.25	1,568.75	12,185	Oct. 16, 1918
2344	West Point	17,648.22	17,648.22			5,911.79	12,175	July 14, 1918
2345	West Port	321.12	1,598.75		32,038.50	4,695.08	10,600	Aug. 19, 1918
2346	West Shore	719.06	719.06	181.50	684.46	12,792.45	12,163	Sept. 21, 1918
2347	West Wauna	42.86	42.86		5.94	10.97	12,570	Dec. 30, 1918
2348	Westward-Ho	178.03	178.03		5,733.76	5,911.79		
2349	West Zeda	8.91	8.91	4,696.17		4,695.08		
2350	West Wood	610.48	607.45	22.46		484.97		
2351	Williamic	11,941.69	12,792.45			12,792.45		
2352	Winding Gulf	10.97	10.97		21,648.57	21,648.57		
2353	Yellowstone	53.03	53.03			53.03		
2354	Zirkel							
Total		13,650.45	611,928.99	20,296.20	1,027,519.55	1,794,740.54		

1925	Port Labs.....	356.35	356.35	356.35	356.35	356.35	356.35
2012	Saccarappa.....	98.17	98.17	98.17	98.17	98.17	98.17
2013	Sac City.....	426.37	426.37	426.37	426.37	426.37	426.37
2166	St. Francis.....	10.00	10.00	10.00	10.00	10.00	10.00
2113	Scranton.....	8.27	8.27	8.27	8.27	8.27	8.27
2132	Sixola.....	21.00	21.00	21.00	21.00	21.00	21.00
2134	Skinner, Janet.....	63	63	63	63	63	63
1355	Tausig, Felix.....	99.48	99.48	99.48	99.48	99.48	99.48
2317	Watouman.....	740.76	740.76	740.76	740.76	740.76	740.76
2316	Wathenia.....	428.77	428.77	428.77	428.77	428.77	428.77
2227	West Bridge.....	198.50	198.50	198.50	198.50	198.50	198.50
2331	West Coast.....	298.45	298.45	298.45	298.45	298.45	298.45
2332	West Cobalt.....	81.72	81.72	81.72	81.72	81.72	81.72
2334	West Compo.....	30.12	30.12	30.12	30.12	30.12	30.12
2335	West Corum.....	236.06	236.06	236.06	236.06	236.06	236.06
2336	West Cressay.....	97.62	97.62	97.62	97.62	97.62	97.62
2337	West Ekouk.....	7,654.16	7,654.16	7,654.16	7,654.16	7,654.16	7,654.16
2338	West El Cajon.....	30.12	30.12	30.12	30.12	30.12	30.12
2339	West Eleasco.....	2,067.05	2,067.05	2,067.05	2,067.05	2,067.05	2,067.05
2340	West Eldara.....	563.79	563.79	563.79	563.79	563.79	563.79
2376	Western Alby.....	56.27	56.27	56.27	56.27	56.27	56.27
2377	Western Bell.....	570.04	570.04	570.04	570.04	570.04	570.04
2379	Western Comet.....	570.04	570.04	570.04	570.04	570.04	570.04
2378	Western Chief.....	1,114.70	1,114.70	1,114.70	1,114.70	1,114.70	1,114.70
2382	Western Hope.....	1,090.18	1,090.18	1,090.18	1,090.18	1,090.18	1,090.18
2387	Western Plain.....	2,432.45	2,432.45	2,432.45	2,432.45	2,432.45	2,432.45
2388	Western Sea.....	19.51	19.51	19.51	19.51	19.51	19.51
2389	Western Spirit.....	114.55	114.55	114.55	114.55	114.55	114.55
2341	Westford.....	9.95	9.95	9.95	9.95	9.95	9.95
2344	West Gambo.....	124.00	124.00	124.00	124.00	124.00	124.00
2345	West Gate.....	2,279.25	2,279.25	2,279.25	2,279.25	2,279.25	2,279.25
2346	West Gatomaka.....	554.98	554.98	554.98	554.98	554.98	554.98
2349	West Hohomao.....	3.38	3.38	3.38	3.38	3.38	3.38
2351	West Kyska.....	7.50	7.50	7.50	7.50	7.50	7.50
2356	West Loquassuk.....	32.62	32.62	32.62	32.62	32.62	32.62
2354	West Lohaway.....	570.04	570.04	570.04	570.04	570.04	570.04
2357	West Madaket.....	694.04	694.04	694.04	694.04	694.04	694.04
2358	West Mahomet.....	614.40	614.40	614.40	614.40	614.40	614.40
2360	West Mead.....	2,949.75	2,949.75	2,949.75	2,949.75	2,949.75	2,949.75
2363	West Mount.....	563.79	563.79	563.79	563.79	563.79	563.79
2366	West Pool.....	442.20	442.20	442.20	442.20	442.20	442.20
2369	West View.....	562.79	562.79	562.79	562.79	562.79	562.79
2367	Westport.....	570.04	570.04	570.04	570.04	570.04	570.04
2368	West Shore.....	570.04	570.04	570.04	570.04	570.04	570.04
2370	West Wauma.....	131.58	131.58	131.58	131.58	131.58	131.58
2372	West Zeda.....	30.12	30.12	30.12	30.12	30.12	30.12
2399	Williamatic.....	557.54	557.54	557.54	557.54	557.54	557.54
	Total.....	414.40	414.40	414.40	414.40	414.40	414.40
		18,864.98	18,864.98	18,864.98	18,864.98	18,864.98	18,864.98
		75,727.66	75,727.66	75,727.66	75,727.66	75,727.66	75,727.66
		75,478.27	75,478.27	75,478.27	75,478.27	75,478.27	75,478.27
		249.39	249.39	249.39	249.39	249.39	249.39
		3,440.47	3,440.47	3,440.47	3,440.47	3,440.47	3,440.47
		98,033.11	98,033.11	98,033.11	98,033.11	98,033.11	98,033.11

* All naval overseas transportation service ships out of commission 92 days.

* Credit.

TANKERS.

Mr. KELLEY. Now, the tankers?

Admiral POTTER. In 1921 the expenditure for the tankers was \$443,803.65. For the first three months of 1922, tankers, \$6,457.89.

Mr. KELLEY. Does that mean that they are being put out of use, too?

Mr. REED. Or turned back.

REFRIGERATORS.

Admiral POTTER. These are accumulated charges. Then, for the naval overseas transportation service ships, refrigerator group, in 1921 the expenditure was \$321,483.96.

Mr. KELLEY. We did not have any of those in 1916?

Admiral POTTER. No, sir. The total number of those vessels was 11 and we have 4 for 1922; the charges against the 4 amount to \$2,314.13.

Mr. KELLEY. So it looks as though they were being gotten rid of?

Admiral POTTER. Yes, sir; they are only accumulated charges.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.								Stores issued, including provisions and medical stores.
NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS—TANKERS.										
1016	Agwidade			\$6.92	\$23.75	\$37.10	\$67.77		Nov. 16, 1918	
1035	Amabala (ex-Alabama)		\$2,337.23	2,337.23	211.40	67.76	2,616.39		Aug. 21, 1918	
1071	Auturn			477.30			477.30			
1137	Broad Arrow		132.88	227.00		588.11	15,872.99		Mar. 17, 1918	
1140	Buck, Frank H.			15,787.27		85.63	947.99		Apr. 23, 1917	
1205	Chestnut Hill			54,389.58		2,334.76	56,786.14		Mar. 14, 1918	
1208	Chinampas (ex-Cushing)			4.59	62.00	496.90	501.49		Oct. 14, 1918	
1253	Connolly, John M.		165,754.08	166,093.21			166,093.21		May 18, 1918	
1541	Cudaby, Joseph			133.00			133.00			
1541	Debra			5,885.51		92.04	6,614.92		Oct. 21, 1917	
1277	Doherty, Edward L. III		837.37	6,522.88		36,603.13	40,867.31		Nov. 25, 1918	
1362	Gargoyle (ex-Pennoll)		1,419.15	4,264.18		1,044.40	1,204.70			
1410	Goldshell			160.30	35.55	24,867.04	24,902.59			
1428	Guffey, J. M.			6,314.85			6,314.85		Aug. 8, 1917	
1450	Henry, George G.						5,895.90		Oct. 14, 1918	
1470	Hisko			1,098.84		45,899.57	46,998.41		Dec. 7, 1917	
1483	Hovna			2,058.22		5,250.11	7,317.33		do	
1487	Hoven			1,137.18		1,847.28	2,984.46			
1510	Isom, William			65.18		23,173.56	23,238.74			
1670	Los Angeles			281.77		22.21	303.98		Mar. 1, 1918	
1942	Pratt, Herbert L.			9.37	202.03	2,074.66	2,286.06		Aug. 9, 1917	
2169	Standard Arrow			131.29		464.09	595.38		June 10, 1918	
2172	Stand, W. L.		63.00	74.12	9,609.41	196.09	18,275		Aug. 22, 1917	
2186	Sylvan Arrow		61.51	542.55		214.21	9,852.62		Sept. 18, 1918	
2268	William Rockefeller			78.73			78.73		July 19, 1918	
2298	Tonila			3.12		540.57	543.69			
2404	Windred			7.94		20,263.45	20,271.39		June 21, 1918	
Total			170,605.22	262,271.94	10,144.14	171,387.57	443,803.65			

1916.

No.	Name of vessel.	Title C.				Repairs and alterations to ships, including equipage.	Total operating expenses.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Full commission.						Commission in reserve.	
UNSERVICEABLE FOR WAR PURPOSES.												
950	Adams.		\$1,244.40	\$1,258.45	\$2,502.85	\$2,808.87		\$3,311.72	1,400	1876		
953	Boxer.		25.00	56,003.03	56,028.03	714.24		57,642.27	346	1905	12	
954	Constitution.	\$422,493.89	6,453.01	252,341.64	681,268.54	6,213.22		687,501.76	1,970	1797	12	
955	Constitution.					1,194.39		1,944.39	2,200	1797		
956	Cumberland.			2,749.25	2,749.25	1,023.33		3,772.58	1,800	1904	12	
957	Essex.		1,128.00	1,081.63	2,209.63	8,321.93		10,531.56	1,375	1876		
959	Franklin.					3,980.10		3,980.10	865	1865	4	
960	Gopher.		837.45	1,621.81	2,459.26	3,145.40		7,604.66	840	1871		
961	Granite State.		1,243.20	2,899.04	4,142.24	3,207.41		7,349.65	4,150	1818		
962	Hartford.	150,552.74		58,185.99	217,739.73	10,034.97		227,774.70	2,700	1858		12
963	Intrepid.	2,402.19		4,682.78	7,100.47	7,238.50		12,587.75	1,800	1904		
965	Montana.	60,476.75	15.50	19,469.14	85,020.56	5,457.28		92,859.06	1,900	No record	12	
967	Philadelphia.	5,674.67		18,188.83	43,084.74	11,393.21		54,477.95	4,410	1890	6	
971	Rainbow.	1,717.04		15,660.42	29,808.80	22,974.51		52,783.31	4,360	July 18, 1898	6	
973	Rainbow.	13,868.51		1,516.57	7,982.23	7,926.80		15,909.03	2,835	Dec. 3, 1909	12	
969	Rainbow.			6,465.66		3,852.02		3,852.02	3,300	1868		5
970	Relief.			653.63	653.63	1,413.75		2,067.38	2,700	1858	12	
970	Richmond.	81,303.84	9,720.00	40,720.18	131,744.02	2,484.69		134,228.71	1,175	Dec. 3, 1899	12	
971	Severn.	89,650.11	89.98	31,663.78	121,409.87	3,705.16		125,115.03	3,100	1898	12	
971	Southey.			2,300.26	2,300.26	1,632.77		3,933.03	2,255	1868	12	
974	Topham.		816.90	955.73	1,772.63	1,621.65		3,394.28	655	1844		
975	Wolverine.		510.60	1,035.88	1,546.48	1,216.62		2,763.10	900	1864		
975	Yantic.											
	Total.	852,926.92	31,272.17	518,844.13	1,403,040.22	113,619.82		1,516,663.04				
	Equipage.							379,165.76				
	Total.							1,895,828.80				

No.	Name of vessel.	Accrued pay.	Title C.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
	UNSERVICABLE FOR WAR PURPOSES.									
8901	Adams.....	\$21,124.88	\$925.25	\$24,050.13	\$5.00	\$3,050.00	\$24,050.13	1,400	1876	
8902	Old Constellation.....		\$925.25	17,211.31	246.58	1,951.31	19,408.20	1,920	1797	
8903	Old Constitution.....		\$925.25	17,211.31	400.00	2,817.48	3,738.06	2,200	1797	
8904	Cumtland.....	115,747.97		115,827.65	3,892.18	2,817.48	119,739.45	1,800	1904	
8905	Grattle State.....		125.50	35,358.00	10,773.31	29,074.08	75,331.86	1,150	1818	
8906	Hartford.....			15,754.00	2,107.91	3,214.20	20,974.11	2,700	1858	
8907	Hatfield.....			31,897.03	2,679.13	4,154.15	38,730.21	1,800	1904	
8911	Monkton.....	66,412.05	2,439.76	38,796.39	2,741.70	1,696.12	44,939.25	1,410	1880	
8912	Philadelphia.....			38,796.39	2,892.40	1,696.12	44,939.25	2,835	1887	
8914	Relna Mercedes.....	368,134.90	9,071.25	6,781.50	11,502.38	1,092.31	364,510.13	2,700	1868	
8915	Richmond.....			3,300.00	1,424.48	22.28	6,746.76	2,100	1868	
8917	Southary.....	50,676.21	1,098.29	10,029.16	1,695.83	14,776.62	120,648.51	2,255	1881	
8918	Topeka.....		2,257.14	2,257.14	1,715.32	1,472.91	5,443.37			
	Total.....	622,096.10	16,759.87	881,157.94	42,706.91	64,527.99	988,392.84			

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.						
	NAVAL OVERSEAS TRANSPORTATION SHIPS—SEAGOING BARGES.									
1917	Cullen, Katherine.		\$5.25	\$20.00	\$25.25	\$21.74	\$46.99		Sept. 28, 1918	
8822	General Knox.					154.02	154.02		Nov. 8, 1917	
8829	Nahunta (ex-West Point).			104.60	104.60	224.08	328.68		Aug. 8, 1918	
8830	Old Dominion.					90.46	90.46		do.	
8832	San Joaquin.		248.00		248.00	113.29	361.29		do.	
8837	Walker, J. B.			3.00	3.00		3.00	7,000	do.	
	Total.		253.25	127.60	380.85	603.59	964.44			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
	UNSERVIZABLE FOR WAR PURPOSES.									
8901	Adams.....				\$2,468.05		\$300.53	\$300.53		92
8903	Old Constellation.....						121.29	2,596.34		92
8904	Old Constitution.....						51.83	51.83		92
8905	Cumberland.....							217.70		92
8906	Granite State.....							32.62		92
8909	Harford.....		\$398.23		217.70	\$4,110.05	892.28	8,996.48		92
8910	Intrepid.....							4,975.14		92
8911	Mohican.....	\$24,456.06	3,313.94	3,565.92	3,964.15	14.25	19.14	30,398.15		92
8912	Philadelphia.....	215.74	115.33	2,334.15	30,104.15	199.89	94.11	30,345.77		92
8914	Reina Mercedes.....	150,999.80	4,555.61	10,875.61	11,206.68	15,662.53	3,445.96	182,499.10		92
8917	Southery.....	4,726.45	28.48	16,336.81	171,862.22	9,284.52	1,322.36	19,893.06		92
	Total.....	180,398.05	8,411.59	50,640.46	239,450.10	29,502.28	7,336.74	276,786.12		92

¹ In commission 92 days unless otherwise noted.

EX-FOREIGN SHIPS.

Mr. KELLEY. The next are ex-foreign ships. Of course, we did not have any of those in 1916?

Admiral POTTER. No; but in 1921 we had quite a formidable lot.

Mr. KELLEY. What did they cost us in 1921?

Admiral POTTER. In 1921 they cost us \$11,548,036.35.

Mr. KELLEY. So there must have been a great many on that list?

Mr. REED. Probably 150.

Mr. KELLEY. How much did they cost us during the first three months of 1922?

Admiral POTTER. \$1,153,898.37.

Mr. KELLEY. We did not have any of those before the war, and they are costing us now at the rate of about \$4,600,000 a year?

Admiral POTTER. Yes, sir; there are 57 of them.

Mr. REED. But only 12 of them in active commission?

Mr. KELLEY. These are commercial ships.?

Admiral POTTER. Yes, sir. The *Bath* is a cargo carrier, the *Bridgeport* is a supply ship, the *Gulfport* is a cargo carrier, and the *Kerry* is a supply ship. Admiral Coontz can tell you what they are for.

Mr. KELLEY. About how many did you say there were?

Admiral POTTER. Fifty-seven, against which we have charges for repairs, but I think not more than 12 or 14 at the outside are in commission.

Mr. KELLEY. Put in the tables at this point.

Admiral POTTER. Very well.

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including compensated rations, medical stores.							
EX-FOREIGN.										
1006	Actaeon.									
1013	Aeolus (ex-German Kurhust).			\$863.29			\$863.29			
1015	A g a m e n o m (ex-German Kaiser Wilhelm II).			22.00		\$96.41	118.41	20,000	July 24, 1917	
1038	America (ex-German Amphion).	\$89.17	12,441.16	12,530.33		105,944.19	118,474.52	25,530	Aug. 21, 1917	
1040	Amphion (ex-German).		4,312.62	4,312.62	\$894.00	38,304.08	43,500.70	41,700	Aug. 5, 1917	
1049	Antelope (ex-German Neckar).		165.65	165.65	161.84	9.47	336.96			
1054	Arcadia (ex-German).	28.06	769.30	701.43	523.00	1,135.27	956.94	17,024	Sept. 5, 1917	
1083	Arsadia (ex-German Bohemia).		2,161.12	2,161.12	112.81		2,273.93	10,000	Jan. 20, 1919	
1086	Astoria (ex-German).		10,331.79	10,331.79	93.00	4,567.37	14,992.16	10,456	Oct. 17, 1917	
1093	Balt (D).	2,022.99	43,916.99	112,950.50	8,240.92	40,401.61	161,593.03		Nov. 15, 1917	
1101	Bath (ex-German Andromeda).		4,114.38	4,431.16	25.43	19.80	4,478.39	17,300	Mar. 27, 1918	
1102	Beaufort (ex-German Rudolph Blumberg).	133,497.36	81,804.69	225,942.16	15,394.35	56,708.65	298,045.16		July 30, 1917	
1106	Bielefeld (D).		854.87	854.87			854.87		Mar. 28, 1918	
1118	Besocki (D).	109,849.69	7,969.25	178,369.90	5,698.16	67,984.72	252,052.78		Sept. 29, 1917	
1122	Bukolsdyk (D).		16.53	1,052.20		12,987.15	14,060.44	8,414	Apr. 2, 1919	
1123	Black Arrow.		58.35	39,870.37	115.56	3,329.70	43,315.63	13,740	Mar. 21, 1918	
1126	Black Hawk (ex-German Rheinfahrt).		375.81	5,088.39	4,120.94	987.25	10,176.58	1,100		
1127	Black Hawk (ex-German Rheinfahrt).					7,500.92	7,500.92			
1135	Bridgeport (ex-German Breslau).		3,981.72	3,981.72	382.60		4,364.32	13,500	May 15, 1918	
1142	Bullerburg (D).	574,087.39	24,761.40	831,800.84	297,447.87	150,377.62	1,279,628.33	8,600	Aug. 25, 1917	
1152	Calico (ex-German).		6,524.12	11,483.68	1,058.63	2,959.34	15,499.61	14,538	Mar. 29, 1918	
1156	Camden (ex-German).		44.60	22.58		67.18				
1251	Cap Finisterre (ex-German).		174,330.52	634,277.04	156,545.01	183,824.64	974,846.68	4,494	Aug. 15, 1917	
1193	Cape (ex-German Elmhorn).		434,315.06	589.27	2,400.46	4,339.95	7,419.68		Jan. 8, 1917	
1195	Celebes (ex-D).		47.96	8,612.79		4,906.82	13,519.61	4,594	Jan. 6, 1918	
1202	Chattahoochee.		.75	5,650.62	43.02		5,693.64			
1221	Chlo (ex-D).		1,358.03	1,358.03		156.53	1,358.03		Apr. 3, 1918	
				1,358.03		1,358.03	1,358.03		Apr. 3, 1918	

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Ton- nage.	Date of first commission.	Months in com- mission.
		Accrued pay.	Miscellaneous expense, in- cluding com- muted rations.	Stores issued, including pro- visions and medical stores.							
EX-FOREIGN—continued.											
1923	Pocahontas (ex-German Prinzess Irene)		\$416.68	\$112.00	\$528.68		\$3,102.36	\$3,631.04	18,000	July 25, 1917	
1941	Potomac (ex-Hamburg)			1,231.63	1,231.63	\$708.86	544.90	2,444.39	18,026	Aug. 16, 1917	
1946	President Grant (ex-German)		355.97	5,899.29	5,725.26		21,759.20	27,484.46		July 30, 1917	
1946	President Lincoln (ex-German)						149.58	149.58			
1946	Princess Matilda (ex-German)		10.34	24,576.11	24,586.45		1,802.62	26,688.97	20,500	Apr. 27, 1918	
1946	Princess Matilda (ex-German)						48,463.94	49,018.43			
1945	Princess Matilda (ex-German)		16.91	3,193.14	3,210.05	8,646.23	46,225.04	58,081.32		Feb. 2, 1918	
1942	Prince Frederick Wilhelm (ex-German)		2,968.30	42,357.55	132,013.33	23,433.12	235,632.56	391,079.01	6,500	Mar. 23, 1918	
1942	Quincy (ex-German)		\$86,669.48	30,837.96	30,837.96		29,901.56	60,839.52			
1942	Quincy (ex-German)			9,222.70	35,791.18			35,791.18			
2004	Radeky (ex-German)		21.08								
1958	Rappahannock (ex-German)		5,592.47	84,719.67	239,343.98	144,655.72	371,013.30	755,013.00	17,000	Dec. 8, 1917	
1987	Rijndijk (D)						18,721.26	18,721.26	7,500	July 9, 1918	
1987	Rijndijk (D)		195.21	202.96	397.17	3.25	1,265.61	8,931.63	23,650	May 1, 1918	
1989	Rijndijk (D)						404.42	404.42		Mar. 29, 1918	
1995	Rondo (D)		32.00	26.04	26.04	24.62	1,821.02	71.04	16,100	May 17, 1918	
2014	Sechem (ex-German)						1,605.68	1,605.68	15,300	Mar. 29, 1918	
2020	Samarinda (D)			541.62	541.62		205.40	747.02	12,300	Aug. 29, 1918	
2021	Samosa (ex-German Golf)			1,253.26	1,253.26			1,253.26	550	June 9, 1917	
2049	Savannah		207,954.51	113,803.68	342,640.53	76,530.93	637,447.24	1,046,618.80	10,800	Nov. 3, 1917	
2053	S-132			216.13	1,496.53		2,192.87	3,689.40			
2055	Schurs (ex-German Gfr)						6.46	6.46			
2115	Soesdijk (D)			61.62	61.62						
2158	Stephan (ex-German)			5,519.19	5,519.19		61.62	61.62		Mar. 30, 1918	
2188	Susquehanna (ex - German Rhein)							5,519.19		Mar. 30, 1918	
	Suwanee (ex-German)		2.00	1,009.81	1,011.81	68.06	145.64	1,226.51	17,867	Sept. 5, 1917	
	Teresa			3,596.11	3,596.11		135.07	3,720.18			
	Ternate (D)						4,031.57	4,031.57	8,615	Sept. 27, 1917	
	Tennessee (ex-German)			153.22	153.22	86.85	14.37	254.44		Apr. 6, 1918	
	Tennessee (ex-German)			240.37	240.37			240.37			
	Tennessee (ex-German)						11.01	11.01	5,120	Jan. 5, 1918	
	Tennessee (ex-German)		71.13				1,394.92	1,394.92	17,360	Apr. 1, 1918	
	Tennessee (ex-German)		6,004.50			321.29	18,377.41	24,381.91		Apr. 2, 1918	
	Tennessee (ex-German)						2,550.37	2,550.37			
	Tennessee (ex-German)		4,558.86								

U-11 (ex-German)	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-00	2100-01	2101-02	2102-03	2103-04	2104-05	2105-06	2106-07	2107-08	2108-09	2109-10	2110-11	2111-12	2112-13	2113-14	2114-15	2115-16	2116-17	2117-18	2118-19	2119-20	2120-21	2121-22	2122-23	2123-24	2124-25	2125-26	2126-27	2127-28	2128-29	2129-30	2130-31	2131-32	2132-33	2133-34	2134-35	2135-36	2136-37	2137-38	2138-39	2139-40	2140-41	2141-42	2142-43	2143-44	2144-45	2145-46	2146-47	2147-48	2148-49	2149-50	2150-51	2151-52	2152-53	2153-54	2154-55	2155-56	2156-57	2157-58	2158-59	2159-60	2160-61	2161-62	2162-63	2163-64	2164-65	2165-66	2166-67	2167-68	2168-69	2169-70	2170-71	2171-72	2172-73	2173-74	2174-75	2175-76	2176-77	2177-78	2178-79	2179-80	2180-81	2181-82	2182-83	2183-84	2184-85	2185-86	2186-87	2187-88	2188-89	2189-90	2190-91	2191-92	2192-93	2193-94	2194-95	2195-96	2196-97	2197-98	2198-99	2199-00	2200-01	2201-02	2202-03	2203-04	2204-05	2205-06	2206-07	2207-08	2208-09	2209-10	2210-11	2211-12	2212-13	2213-14	2214-15	2215-16	2216-17	2217-18	2218-19	2219-20	2220-21	2221-22	2222-23	2223-24	2224-25	2225-26	2226-27	2227-28	2228-29	2229-30	2230-31	2231-32	2232-33	2233-34	2234-35	2235-36	2236-37	2237-38	2238-39	2239-40	2240-41	2241-42	2242-43	2243-44	2244-45	2245-46	2246-47	2247-48	2248-49	2249-50	2250-51	2251-52	2252-53	2253-54	2254-55	2255-56	2256-57	2257-58	2258-59	2259-60	2260-61	2261-62	2262-63	2263-64	2264-65	2265-66	2266-67	2267-68	2268-69	2269-70	2270-71	2271-72	2272-73	2273-74	2274-75	2275-76	2276-77	2277-78	2278-79	2279-80	2280-81	2281-82	2282-83	2283-84	2284-85	2285-86	2286-87	2287-88	2288-89	2289-90	2290-91	2291-92	2292-93	2293-94	2294-95	2295-96	2296-97	2297-98	2298-99	2299-00	2300-01	2301-02	2302-03	2303-04	2304-05	2305-06	2306-07	2307-08	2308-09	2309-10	2310-11	2311-12	2312-13	2313-14	2314-15	2315-16	2316-17	2317-18	2318-19	2319-20	2320-21	2321-22	2322-23	2323-24	2324-25	2325-26	2326-27	2327-28	2328-29	2329-30	2330-31	2331-32	2332-33	2333-34	2334-35	2335-36	2336-37	2337-38	2338-39	2339-40	2340-41	2341-42	2342-43	2343-44	2344-45	2345-46	2346-47	2347-48	2348-49	2349-50	2350-51	2351-52	2352-53	2353-54	2354-55	2355-56	2356-57	2357-58	2358-59	2359-60	2360-61	2361-62	2362-63	2363-64	2364-65	2365-66	2366-67	2367-68	2368-69	2369-70	2370-71	2371-72	2372-73	2373-74	2374-75	2375-76	2376-77	2377-78	2378-79	2379-80	2380-81	2381-82	2382-83	2383-84	2384-85	2385-86	2386-87	2387-88	2388-89	2389-90	2390-91	2391-92	2392-93	2393-94	2394-95	2395-96	2396-97	2397-98	2398-99	2399-00	2400-01	2401-02	2402-03	2403-04	2404-05	2405-06	2406-07	2407-08	2408-09	2409-10	2410-11	2411-12	2412-13	2413-14	2414-15	2415-16	2416-17	2417-18	2418-19	2419-20	2420-21	2421-22	2422-23	2423-24	2424-25	2425-26	2426-27	2427-28	2428-29	2429-30	2430-31	2431-32	2432-33	2433-34	2434-35	2435-36	2436-37	2437-38	2438-39	2439-40	2440-41	2441-42	2442-43	2443-44	2444-45	2445-46	2446-47	2447-48	2448-49	2449-50	2450-51	2451-52	2452-53	2453-54	2454-55	2455-56	2456-57	2457-58	2458-59	2459-60	2460-61	2461-62	2462-63	2463-64	2464-65	2465-66	2466-67	2467-68	2468-69	2469-70	2470-71	2471-72	2472-73	2473-74	2474-75	2475-76	2476-77	2477-78	2478-79	2479-80	2480-81	2481-82	2482-83	2483-84	2484-85	2485-86	2486-87	2487-88	2488-89	2489-90	2490-91	2491-92	2492-93	2493-94	2494-95	2495-96	2496-97	2497-98	2498-99	2499-00	2500-01	2501-02	2502-03	2503-04	2504-05	2505-06	2506-07	2507-08	2508-09	2509-10	2510-11	2511-12	2512-13	2513-14	2514-15	2515-16	2516-17	2517-18	2518-19	2519-20	2520-21	2521-22	2522-23	2523-24	2524-25	2525-26	2526-27	2527-28	2528-29	2529-30	2530-31	2531-32	2532-33	2533-34	2534-35	2535-36	2536-37	2537-38	2538-39	2539-40	2540-41	2541-42	2542-43	2543-44	2544-45	2545-46	2546-47	2547-48	2548-49	2549-50	2550-51	2551-52	2552-53	2553-54	2554-55	2555-56	2556-57	2557-58	2558-59	2559-60	2560-61	2561-62	2562-63	2563-64	2564-65	2565-66	2566-67	2567-68	2568-69	2569-70	2570-71	2571-72	2572-73	2573-74	2574-75	2575-76	2576-77	2577-78	2578-79	2579-80	2580-81	2581-82	2582-83	2583-84	2584-85	2585-86	2586-87	2587-88	2588-89	2589-90	2590-91	2591-92	2592-93	2593-94	2594-95	2595-96	2596-97	2597-98	2598-99	2599-00	2600-01	2601-02	2602-03	2603-04	2604-05	2605-06	2606-07	2607-08	2608-09	2609-10	2610-11	2611-12	2612-13	2613-14	2614-15	2615-16	2616-17	2617-18	2618-19	2619-20	2620-21	2621-22	2622-23	2623-24	2624-25	2625-26	2626-27	2627-28	2628-29	2629-30	2630-31	2631-32	2632-33	2633-34	2634-35	2635-36	2636-37	2637-38	2638-39	2639-40	2640-41	2641-42	2642-43	2643-44	2644-45	2645-46	2646-47	2647-48	2648-49	2649-50	2650-51	2651-52	2652-53	2653-54	2654-55	2655-56	2656-57	2657-58	2658-59	2659-60	2660-61	2661-62	2662-63	2663-64	2664-65	2665-66	2666-67	2667-68	2668-69	2669-70	2670-71	2671-72	2672-73	2673-74	2674-75	2675-76	2676-77	2677-78	2678-79	2679-80	2680-81	2681-82	2682-83	2683-84	2684-85	2685-86	2686-87	2687-88	2688-89	2689-90	2690-91	2691-92	2692-93	2693-94	2694-95	2695-96	2696-97	2697-98	2698-99	2699-00	2700-01	2701-02	2702-03	2703-04	2704-05	2705-06	2706-07	2707-08	2708-09	2709-10	2710-11	2711-12	2712-13	2713-14	2714-15	2715-16	2716-17	2717-18	2718-19	2719-20	2720-21	2721-22	2722-23	2723-24	2724-25	2725-26	2726-27	2727-28	2728-29	2729-30	2730-31	2731-32	2732-33	2733-34	2734-35	2735-36	2736-37	2737-38	2738-39	2739-40	2740-41	2741-42	2742-43	2743-44	2744-45	2745-46	2746-47	2747-48	2748-49	2749-50	2750-51	2751-52	2752-53	2753-54	2754-55	2755-56	2756-57	2757-58	2758-59	2759-60	2760-61	2761-62	2762-63	2763-64	2764-65	2765-66	2766-67	2767-68	2768-69	2769-70	2770-71	2771-72	2772-73	2773-74	2774-75	2775-76	2776-77	2777-78	2778-79	2779-80	2780-81	2781-82	2782-83	2783-84	2784-85	2785-86	2786-87	2787-88	2788-89	2789-90	2790-91	2791-92	2792-93	2793-94	2794-95	2795-96	2796-97	2797-98	2798-99	2799-00	2800-01	2801-02	2802-03	2803-04	2804-05	2805-06	2806-07	2807-08	2808-09	2809-10	2810-11	2811-12	2812-13	2813-14	2814-15	2815-16	2816-17	2817-18	2818-19	2819-20	2820-21	2821-22	2822-23	2823-24	2824-25	2825-26	2826-27	2827-28	2828-29	2829-30	2830-31	2831-32	2832-33	2833-34	2834-35	2835-36	2836-37	2837-38	2838-39	2839-40	2840-41	2841-42	2842-43	2843-44	2844-45	2845-46	2846-47	2847-48	2848-49	2849-50	2850-51	2851-52	2852-53	2853-54	2854-55	2855-56	2856-57	2857-58	2858-59	2859-60	2860-61	2861-62	2862-63	2863-64	2864-65	2865-66	2866-67	2867-68	2868-69	2869-70	2870-71	2871-72	2872-73	2873-74	2874-75	2875-76	2876-77	2877-78	2878-79	2879-80	2880-81	2881-82	2882-83	2883-84	2884-85	2885-86	2886-87	2887-88	2888-89	2889-90	2890-91	2891-92	2892-93	2893-94	2894-95	2895-96	2896-97	2897-98	2898-99	2899-00	2900-01	2901-02	2902-03	2903-04	2904-05	2905-06	2906-07	2907-08	2908-09	2909-10	2910-11	2911-12	2912-13	2913-14	2914-15	2915-16	2916-17	2917-18	2918-19	2919-20	2920-21	2921-22	2922-23	2923-24	2924-25	2925-26	2926-27	2927-28	2928-29	2929-30	2930-31	2931-32	2932-33	2933-34	2934-35	2935-36	2936-37	2937-38	2938-39	2939-40	2940-41	2941-42	2942-43	2943-44	2944-45	2945-46	2946-47	2947-48	2948-49	2949-50	2950-51	2951-52	2952-53	2953-54	2954-55	2955-56	2956-57	2957-58	2958-59	2959-60	2960-61	2961-62	2962-63	2963-
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1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
	NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS—TANKERS.										
1071	Auburn			\$1,006.16	\$1,006.16			\$1,006.16			
1277	Doherty, Edward L., III					\$408.24		5,010.55			
1470	Hisko		\$351.18		351.18			351.18			
	Total		351.18	1,006.16	1,447.34	408.24	4,542.31	6,457.99			

¹ All naval overseas Transportation Service tankers out of commission 92 days.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
NAVAL VESSELS, TRANSPORTATION SERVICE SHIPS—REFRIGERATOR.											
1151	Calamaries.....			\$11, 213. 73	\$11, 213. 73		\$18, 567. 43	\$29, 781. 16		Apr. 10, 1918	
1419	Ice King (ex-Passaic).....		\$36. 00		36. 00	\$217. 00	19, 436. 47	19, 689. 47	10, 562	July 3, 1918	
1685	Luella (ex-War Whale).....		41, 371. 64	66. 25	41, 437. 89	86. 88	16, 460. 66	57, 311. 67	8, 785	May 27, 1918	
1780	Montclair.....		8. 63	1, 229. 05	1, 237. 688		248. 88	1, 486. 56	10, 562	Aug. 18, 1918	
1799	Muscadine.....						153, 258. 91	153, 258. 91	8, 785	May 2, 1918	
1846	North Pole.....						126. 82	126. 82	8, 785	Dec. 12, 1918	
1870	Oskawa.....		149. 98	6, 404. 98	6, 554. 96			6, 554. 96	11, 570	Jan. 6, 1919	
1926	Polar Bear.....		82. 50	197. 00	279. 50			279. 50	8, 785	Dec. 3, 1918	
1927	Polar Land.....		49. 50	7. 20	56. 70		14, 131. 64	14, 188. 34	8, 835	Nov. 3, 1918	
1928	Polar Sea.....			8, 592. 30	8, 592. 30		13, 962. 29	22, 554. 59	8, 835	Oct. 23, 1918	
2018	Sagua.....			50. 43	50. 43		1, 702. 53	1, 752. 96	6, 000	Aug. 12, 1918	
2158	South Pole.....					2, 946. 33		2, 946. 33	8, 835	Dec. 5, 1918	
2253	Tivives.....			7, 637. 16	7, 637. 16		3, 415. 53	11, 052. 69		July 5, 1918	
	Total.....		41, 698. 25	35, 398. 10	77, 096. 35	3, 076. 45	241, 311. 16	321, 483. 96			

1922.

(First quarter.)

No.	Name of vessel.	Title C.		Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.					Days in full commission.	Days out of commission.
	NAVAL VESSELS, TRANSPORTATION SERVICE SHIPS—REFRIGERATOR.								
1151	Colamare.		\$42.06	\$42.06			\$42.06		
1870	Osaka.		2,496.73	2,496.73			2,496.73		
1928	Polar Sea.		71.85	71.85			71.85		
1929	Polar Star.				\$2.59		2.59		
	Total.		2,311.54	2,311.54	2.59		2,314.13		

¹ All naval overseas: Transportation Service refrigerator ships: out of commission 92 days.

1921.

No.	Name of vessel.	Accrued pay.	Title C.			Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
			Miscellaneous expense, including commissions and imbursements.	Stores issued, including provisions and medical stores.	Total operating expenses.						Equipage.
NAVAL OVERSEAS TRANSPORTATION SHIPS—SEAGOING BARGES.										
1917	Cullen, Katherine.		\$5.25	\$20.00	\$25.25	\$21.74	\$46.99		Sept. 28, 1918	
8822	General Knox.					154.02			Nov. 8, 1917	
8829	Nahunta (ex-West Point).			104.60	104.60	224.08	328.68		Aug. 8, 1918	
8830	Old Dominion.					90.46	90.46		do.	
8832	San Joaquin.		248.00		248.00	113.29	361.29		do.	
8837	Walker, J. B.			3.00	3.00	3.00	3.00	7,000	do.	
	Total.		253.25	127.60	380.85	603.59	964.44			

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Ton-nage.	Date of first commission.	Months in com-mission.	
		Accrued pay.	Miscellaneous Stores issued, including provisions, clothing, and medical stores.								
CANADIAN DRIFTERS AND TRAWLERS.											
1158	Canadian Drifter No. 30.		\$137.48	\$137.48		\$3.42	\$140.90	150			
1159	Canadian Drifter No. 31.		137.48	137.48		11.15	148.63	150			
1160	Canadian Drifter No. 36.		137.48	137.48		3.42	140.90	150			
1161	Canadian Drifter No. 41.		137.48	137.48	\$80.77		153.25	150			
1162	Canadian Drifter No. 46.		137.49	137.49			137.49	150			
1163	Canadian Drifter No. 50.		137.49	137.49			137.49	150			
1166	Canadian Drifter No. 61.					192.84	192.84	150			
1169	Canadian Drifter No. 78.					252.79	252.79	150			
Total.			\$24.90	\$24.90	\$80.77	\$63.62	1,007.75				

UNSERVICEABLE SHIPS.

Mr. KELLEY. The next are ships unserviceable for war purposes. They are ships that are being kept on account of their historic value?

Admiral POTTER. Yes; the *Constellation*, the *Constitution*, the *Hartford*, and all those.

Mr. KELLEY. What did they cost us in 1916?

Admiral POTTER. In 1916, \$1,516,663.04.

Mr. KELLEY. And in 1921?

Admiral POTTER. In 1921, \$988,392,884.

Mr. KELLEY. And for the first three months in 1922?

Admiral POTTER. \$276,289.12.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

1916.

No.	Name of vessel.	Title C.		Repairs and alterations to ships, including equipage.	Total operating expenses.	Stores issued (including provisions and medical stores).	Public voucher (including commuted rations).	Accrued pay.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Name of vessel.	Title C.									Full commission.	Commission in reserve.
UNRECOVERABLE FOR WAR PURPOSES.													
920	Albatross		\$1,244.40		\$2,392.85		\$1,258.45		\$5,311.72	1,400	1876		
953	Beaver				56,928.03		56,903.03		57,642.27	1,346	1905	12	
954	Comstock		6,435.01		691,288.54		252,541.64		687,501.76	1,970	1797	12	
955	Compton								1,194.39	2,200	1797		
956	Comber and				2,749.25		2,749.25		3,772.58	1,400	1904	12	
957	Essex		1,128.00		2,519.65		1,061.65		10,531.56	1,375	1876		
959	Franklin								3,969.10		1865	4	
960	Goshawk		837.45		2,459.26		1,021.81		7,604.66	140	1871		
961	Griffin State		1,243.20		4,142.24		2,899.04		7,548.65	4,150	1818		
962	Harbor				217,739.73		58,186.99		227,774.70	2,730	1858		12
963	Intrepid		15.50		7,101.47		4,692.78		12,587.75	1,800	1904		
964	Merican		5,674.67		85,629.56		19,469.14		92,859.06	1,900	No record	12	
967	Minneapolis		1,717.04		43,084.74		18,188.83		54,477.95	4,410	1890	6	6
967	Rainbow		279.85		29,808.40		15,660.42		52,783.31	4,390	July 18, 1898		5
969	Reina Mercedes		1,516.57		7,962.25		6,465.96		15,909.03	2,855	Dec. 3, 1909	12	
970	Reed				653.63		653.63		3,852.02	3,300	1898		
970	Richmond		9,720.00		131,744.02		40,720.18		2,067.38	2,700	1898	12	
971	Seymour		89.98		121,498.87		31,669.78		134,228.71	1,175	Dec. 3, 1899	12	
971	Southern				2,300.26		2,300.26		125,115.03	3,100	1898	12	
973	Topaca		816.90		1,772.63		953.73		3,953.03	2,255	1898	12	
974	Wolverine		510.60		1,546.45		1,055.86		3,394.28	685	1844		
975	Yantic								2,763.10	900	1894		
Total.			31,272.17		1,403,040.22		518,844.13		1,516,663.04				
Equipage.									379,165.76				
Total.									1,895,828.80				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
UNSERVICEABLE FOR WAR PURPOSES.											
8901	Adams.....	\$21,124.88	\$825.25	\$4,932.50	\$26,882.63	\$5.00	\$3,050.96	\$29,933.59	1,400	1876	.....
8903	Old Constellation.....		952.68	16,258.63	17,211.31	296.58	1,851.31	19,459.20	1,920	1797	.....
8904	Old Constitution.....			12.00	12.00	900.00	2,817.95	3,729.95	2,200	1797	.....
8905	Cumberland.....	115,747.97		149.68	115,897.65	3,892.18	9.48	119,780.45	1,800	1904	.....
8908	Granite State.....		125.50	35,358.09	35,483.59	10,773.31	29,074.95	75,331.85	4,150	1818	.....
8909	Hartford.....			15,754.00	15,754.00	1,100.91	3,314.20	20,169.11	2,700	1858	.....
8910	Intrepid.....			31,897.03	31,897.03	2,678.53	1,154.45	35,731.01	1,800	1904	.....
8911	Mohican.....	66,412.05	2,439.76	33,804.69	102,656.50	3,741.79	4,169.52	110,557.81	1,900	1883	.....
8912	Philadelphia.....			39,766.39	39,766.39	2,824.60	1,680.11	44,271.10	4,410	1890	.....
8914	Reina Mercedes.....	368,134.99	9,071.25	6,781.30	383,987.54	11,502.38	1,062.21	396,552.13	2,835	1937	.....
8916	Richmond.....			5,300.00	5,300.00	1,446.48	22.28	6,768.76	2,700	1858	.....
8917	Southery.....	50,676.21	1,068.29	52,287.66	104,052.16	1,825.83	14,776.52	120,654.51	3,100	1904	.....
8918	Topeka.....		2,257.14		2,257.14	1,718.32	1,472.91	5,448.37	2,255	1881	.....
Total.....		622,096.10	16,759.87	242,301.97	881,157.94	42,706.91	64,527.99	988,392.84	.....	.....	.....

1922.

[First quarter.]

No.	Name of vessel.	Title C.		Stores issued, including provisions.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.						Days in full commission.	Operating with reduced complements in reserve or ordinary.	
UN-SERVICABLE FOR WAR PURPOSES.											
4901	Adams.			\$2,468.05	\$2,468.05		\$300.53	\$300.53		92	
4903	Old Constellation.						121.20	2,590.34		92	
4904	Old Constitution.						51.83	51.83		92	
4905	Cumberland.				217.70			217.70		92	
4906	Granite State.				32.62			32.62		92	
4909	Hartford.		\$398.23	3,585.92	3,984.15	\$4,110.05	892.28	8,986.48		92	
4910	Intrepid.			4,941.75	4,941.75	14.25	19.14	4,975.14		92	
4911	Mohican.	\$24,456.06	3,313.94	2,354.15	30,104.15	199.89	94.11	30,398.15		92	
4912	Philadelphia.	215.74	115.33	10,875.61	11,206.68	15,692.53	3,445.96	30,345.77		92	
4914	Reina Mercedes.	150,999.80	4,555.61	16,336.81	171,892.22	9,284.52	1,222.36	182,499.10		92	
4917	Southern.	4,726.45	28.48	9,847.85	14,602.78	201.04	1,089.24	19,893.06		92	
	Total.	180,398.05	8,411.59	50,640.46	239,450.10	29,502.28	7,336.74	276,786.12		92	

¹ In commission 92 days unless otherwise noted.

EX-FOREIGN SHIPS.

Mr. KELLEY. The next are ex-foreign ships. Of course, we did not have any of those in 1916?

Admiral POTTER. No; but in 1921 we had quite a formidable lot.

Mr. KELLEY. What did they cost us in 1921?

Admiral POTTER. In 1921 they cost us \$11,548,036.35.

Mr. KELLEY. So there must have been a great many on that list?

Mr. REED. Probably 150.

Mr. KELLEY. How much did they cost us during the first three months of 1922?

Admiral POTTER. \$1,153,898.37.

Mr. KELLEY. We did not have any of those before the war, and they are costing us now at the rate of about \$4,600,000 a year?

Admiral POTTER. Yes, sir; there are 57 of them.

Mr. REED. But only 12 of them in active commission?

Mr. KELLEY. These are commercial ships.?

Admiral POTTER. Yes, sir. The *Bath* is a cargo carrier, the *Bridgeport* is a supply ship, the *Gulfport* is a cargo carrier, and the *Kittery* is a supply ship. Admiral Coontz can tell you what they are used for.

Mr. KELLEY. About how many did you say there were?

Admiral POTTER. Fifty-seven, against which we have charges for this year, but I think not more than 12 or 14 at the outside are in commission.

Mr. KELLEY. Put in the tables at this point.

Admiral POTTER. Very well.

[illegible]

2265	U-111 (ex-German)				202.39	8.25	19,363.56	19,574.20		
2268	U. B. No. 146				182.52		8,144.29	8,296.81		
2278	Veedijk (D)				7,287.13	786.50	7.06	8,080.69	16,000	Apr. 5, 1918
8964	V-43				841.02		2,001.93	4,262.09		
2299	Von Steuben (ex-German Kron- prinz Wilhelm)				2,564.78	281.73	43,924.96	46,771.47		June 9, 1917
2285	Vesta						8.06	8.06	23,500	Mar. 21, 1918
2286	Wabash (ex-German Seneca)				3,398.32		865.68	3,964.00	4,400	Feb. 16, 1918
2307	Wachusett (ex-German)				10,398.14		1,053.62	11,441.76	9,200	Jan. 9, 1918
2375	Westdijk (D)				47.43	12.00	7,789.06	7,848.51		Mar. 27, 1918
2384	Wieldrecht				5,515.07		55.23	5,570.30	7,350	June 17, 1918
2407	Winterswijk				165.96			165.96		Apr. 2, 1918
2437	Zeelandia (D)				373.55	1,458.00	16,555.65	18,487.20	11,500	Apr. 3, 1918
2439	Zeppelin (ex-German)				597.76	570.00	3,557.26	3,736.50		Mar. 24, 1918
2444	Zuiderdijk (D)				3,178.69	1,028.87	642.97	4,850.53		
2445	Zinnijl				37,918.28		20.46	76,137.83		
	Total	2,949,002.14	176,366.01	2,962,458.96	6,087,827.13	879,353.48	4,580,855.74	11,548,086.35		

1921—Continued.

Title C.											
No.	Name of vessel.	Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.	Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipment.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
EX-FORFEIT—continued.											
1923	Pucabuntas (ex-German Prinzess Irene).		\$116.68	\$112.00	\$24.68		\$3,102.36	\$3,631.04	18,000	July 25, 1917	
1941	Powhatan (ex-Hamburg).			1,231.63	1,231.63			2,483.39	18,028	Aug. 10, 1917	
1946	President Grant (ex-German).		355.97	5,869.29	5,726.26	\$704.86	21,759.20	27,684.86		July 30, 1917	
1947	President Lincoln (ex-German).										
1948	Princess Matilda (ex-German).		10.34	24,576.11	24,586.45		1,892.32	26,488.77	20,500	Apr. 27, 1918	
1949	Princess Mathilda (ex-German).			3,192.14	3,192.14		48,483.04	51,675.18			
1955	Prince Frederick Wilhelm.		16.91	42,357.55	42,374.46	\$,646.23	48,225.04	50,871.50			
1962	Quincy (ex-German).	\$66,666.48	2,966.30	32,037.93	34,004.23	23,433.12	235,632.56	367,070.69	6,500	Feb. 2, 1918	
1963	Quinnabaug.			30,037.96	30,037.96		29,901.56	30,038.52			
2004	Radersky.	28,547.40	21.06	9,222.70	38,791.18		38,791.18	38,791.18			
1978	Rappahannock (ex-German).	149,031.84	5,522.47	84,718.07	239,343.98	144,665.72	371,013.30	750,018.00	17,000	Dec. 8, 1917	
1984	Rijnveld (D).						18,721.26	18,721.26	7,500	July 9, 1918	
1987	Rijnveld (D).										
1989	Rijnveld (D).										
1993	Roonpat (D).		195.21	202.08	397.17	3.25		400.42	23,650	May 17, 1918	
2002	Sachsen (ex-German).		32.00	7,146.88	7,146.88	519.44	1,245.61	8,396.32		Mar. 29, 1918	
2020	Samarinda (D).			26.04	26.04	24.62	321.02	345.64	16,100	May 7, 1918	
2021	Samos (ex-German).			541.02	541.02	45.00		586.02	15,300	Mar. 29, 1918	
2049	Savannah.	207,654.51	20,879.96	1,253.26	1,253.26		265.40	747.02	12,300	Aug. 29, 1917	
8-132	Schur (ex-German Gold).	1,260.40		113,805.06	342,040.53	76,550.93	627,447.34	1,046,018.80	10,800	June 9, 1917	
8693	Sesidijk (D).			216.13	1,466.53		2,192.67	3,669.40		Nov. 3, 1917	
2055	Stephan (ex-German Olir).			61.02	61.02		6.46	67.48			
2155	Stephan (ex-German).			5,519.19	5,519.19			5,519.19		Mar. 30, 1918	
2183	Stephanus (ex-German Rhein).										
2	Sumner (ex-German).	2.00		1,008.81	1,011.81	68.06	145.64	1,225.51	17,857	Sept. 5, 1917	
1	T-1 (D).			3,686.11	3,686.11		135.07	3,721.18			
1	T-2 (ex-German).			153.22	153.22		4,031.57	4,031.57	8,615	Sept. 27, 1917	
1	T-3 (D).			240.37	240.37	86.86	14.37	240.37		Apr. 6, 1918	
1	T-4 (ex-German).										
1	T-5 (ex-German).			9,406.74	9,406.74		11.01	9,417.75	5,130	Jan. 5, 1918	
1	T-6 (ex-German).		71.13	6,406.74	6,477.87		1,365.63	7,843.50	17,360	Apr. 1, 1918	
1	T-7 (ex-German).		6,094.50	17.97	6,112.47	231.20	19,377.41	25,711.18		Apr. 2, 1918	
1	T-8 (ex-German).			17.97	17.97			19,395.38			
1	T-9 (ex-German).			17.97	17.97			19,395.38			
1	T-10 (ex-German).			17.97	17.97			19,395.38			
1	T-11 (ex-German).			17.97	17.97			19,395.38			
1	T-12 (ex-German).			17.97	17.97			19,395.38			
1	T-13 (ex-German).			17.97	17.97			19,395.38			
1	T-14 (ex-German).			17.97	17.97			19,395.38			
1	T-15 (ex-German).			17.97	17.97			19,395.38			
1	T-16 (ex-German).			17.97	17.97			19,395.38			
1	T-17 (ex-German).			17.97	17.97			19,395.38			
1	T-18 (ex-German).			17.97	17.97			19,395.38			
1	T-19 (ex-German).			17.97	17.97			19,395.38			
1	T-20 (ex-German).			17.97	17.97			19,395.38			
1	T-21 (ex-German).			17.97	17.97			19,395.38			
1	T-22 (ex-German).			17.97	17.97			19,395.38			
1	T-23 (ex-German).			17.97	17.97			19,395.38			
1	T-24 (ex-German).			17.97	17.97			19,395.38			
1	T-25 (ex-German).			17.97	17.97			19,395.38			
1	T-26 (ex-German).			17.97	17.97			19,395.38			
1	T-27 (ex-German).			17.97	17.97			19,395.38			
1	T-28 (ex-German).			17.97	17.97			19,395.38			
1	T-29 (ex-German).			17.97	17.97			19,395.38			
1	T-30 (ex-German).			17.97	17.97			19,395.38			
1	T-31 (ex-German).			17.97	17.97			19,395.38			
1	T-32 (ex-German).			17.97	17.97			19,395.38			
1	T-33 (ex-German).			17.97	17.97			19,395.38			
1	T-34 (ex-German).			17.97	17.97			19,395.38			
1	T-35 (ex-German).			17.97	17.97			19,395.38			
1	T-36 (ex-German).			17.97	17.97			19,395.38			
1	T-37 (ex-German).			17.97	17.97			19,395.38			
1	T-38 (ex-German).			17.97	17.97			19,395.38			
1	T-39 (ex-German).			17.97	17.97			19,395.38			
1	T-40 (ex-German).			17.97	17.97			19,395.38			
1	T-41 (ex-German).			17.97	17.97			19,395.38			
1	T-42 (ex-German).			17.97	17.97			19,395.38			
1	T-43 (ex-German).			17.97	17.97			19,395.38			
1	T-44 (ex-German).			17.97	17.97			19,395.38			
1	T-45 (ex-German).			17.97	17.97			19,395.38			
1	T-46 (ex-German).			17.97	17.97			19,395.38			
1	T-47 (ex-German).			17.97	17.97			19,395.38			
1	T-48 (ex-German).			17.97	17.97			19,395.38			
1	T-49 (ex-German).			17.97	17.97			19,395.38			
1	T-50 (ex-German).			17.97	17.97			19,395.38			
1	T-51 (ex-German).			17.97	17.97			19,395.38			
1	T-52 (ex-German).			17.97	17.97			19,395.38			
1	T-53 (ex-German).			17.97	17.97			19,395.38			
1	T-54 (ex-German).			17.97	17.97			19,395.38			
1	T-55 (ex-German).			17.97	17.97			19,395.38			
1	T-56 (ex-German).			17.97	17.97			19,395.38			
1	T-57 (ex-German).			17.97	17.97			19,395.38			
1	T-58 (ex-German).			17.97	17.97			19,395.38			
1	T-59 (ex-German).			17.97	17.97			19,395.38			
1	T-60 (ex-German).			17.97	17.97			19,395.38			
1	T-61 (ex-German).			17.97	17.97			19,395.38			
1	T-62 (ex-German).			17.97	17.97			19,395.38			
1	T-63 (ex-German).			17.97	17.97			19,395.38			
1	T-64 (ex-German).			17.97	17.97			19,395.38			
1	T-65 (ex-German).			17.97	17.97			19,395.38			
1	T-66 (ex-German).			17.97	17.97			19,395.38			
1	T-67 (ex-German).			17.97	17.97			19,395.38			
1	T-68 (ex-German).			17.97	17.97			19,395.38			
1	T-69 (ex-German).			17.97	17.97			19,395.38			
1	T-70 (ex-German).			17.97	17.97			19,395.38			
1	T-71 (ex-German).			17.97	17.97			19,395.38			
1	T-72 (ex-German).			17.97	17.97			19,395.38			
1	T-73 (ex-German).			17.97	17.97			19,395.38			
1	T-74 (ex-German).			17.97	17.97			19,395.38			
1	T-75 (ex-German).			17.97	17.97			19,395.38			
1	T-76 (ex-German).			17.97	17.97			19,395.38			
1	T-77 (ex-German).			17.97	17.97			19,395.38			
1	T-78 (ex-German).			17.97	17.97			19,395.38			
1	T-79 (ex-German).			17.97	17.97			19,395.38			
1	T-80 (ex-German).			17.97	17.97			19,395.38			
1	T-81 (ex-German).			17.97	17.97			19,395.38			
1	T-82 (ex-German).			17.97	17.97			19,395.38			
1	T-83 (ex-German).			17.97	17.97			19,395.38			
1	T-84 (ex-German).			17.97	17.97			19,395.38			
1	T-85 (ex-German).			17.97	17.97			19,395.38			
1	T-86 (ex-German).			17.97	17.97			19,395.38			
1	T-87 (ex-German).			17.97	17.97			19,395.38			
1	T-88 (ex-German).			17.97	17.97			19,395.38			
1	T-89 (ex-German).			17.97	17.97			19,395.38			
1	T-90 (ex-German).			17.97	17.97			19,395.38			
1	T-91 (ex-German).			17.97	17.97			19,395.38			
1	T-92 (ex-German).			17.97	17.97			19,395.38			
1	T-93 (ex-German).			17.97	17.97			19,395.38			
1	T-94 (ex-German).			17.97	17.97			19,395.38			
1	T-95 (ex-German).			17.97	17.97			19,395.38			
1	T-96 (ex-German).			17.97	17.97			19,395.38			
1	T-97 (ex-German).			17.97	17.97			19,395.38			
1	T-98 (ex-German).			17.97	17.97			19,395.38			

[illegible]

1922.

[First quarter.]

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
IN FOREIGN.									
108	America (ex-German).			\$152.55			\$152.55		92
109	Astoria (ex-German).			38.80			1,832.92		92
109-1	Baltic (D).			94.18			111.68		92
109-2	Bath (ex-German Andromeda).	\$26,839.11	\$3,662.42	46,478.13	\$17.50	\$1,794.02	64,132.73		92
109-3	Batjan (D).			365.60	70.11	14,359.76	435.71		92
109-4	Baudouin (ex-German).								
109-5	Baudouin (ex-German).	17,638.53	782.78	32,022.08	4,490.74	51.46	36,565.28		92
109-6	Bismarck (D).			4,383.00	15.60		4,398.60		92
109-7	Bismarck (D).			2,671.86	25.23		2,697.09		92
109-8	Black Arrow.			218.61			208.61		92
109-9	Black Arrow.			32,283.10	17,440.21	2,010.91	231,035.04		92
109-10	Black Arrow (ex-German Breslau).	1,36,721.05	5,397.77	214,603.52	64.28		115,274.18		92
109-11	Baltic (ex-German).			4,532.12	323.60	1,326.90	6,182.62		92
109-12	Baltic (ex-German).			24,438.72	2,000.00		26,438.72		92
109-13	Cap Finisterre (ex-German).			3,262.60			3,262.60		92
109-14	Cap Finisterre (ex-German).			3,557.01			3,557.01		92
109-15	Casco (ex-German Finsbørn).			8,049.43	67.09		8,116.52		92
109-16	Casco (ex-German).								
109-17	De Kalb (ex-German Prince Fiet).								
109-18	Frederick.			75.00	100.83		175.83		92
109-19	Frederickland (ex-D).			48.27	46.08		94.35		92
109-20	Fico.			333.50			333.50		92
109-21	Frankfurt.					3,761.31	3,761.31		92
109-22	George Washington (ex-German).				300.00		300.00		92
109-23	Gerontale (D).			111.81	4.60		116.41		92
109-24	Gulfpot (ex-German Locksum).	24,591.38	455.92	42,451.05	1,803.22	18.00	44,272.26		92
109-25	Houston (ex-German).	32,773.81		17,408.75	2,572.99	925.47	50,007.83		92
109-26	Kittery (ex-German).			13,725.68	46,500.37	71.28	51,356.64		92
109-27	Kittery (ex-President).	24,962.02	1,252.26	22,300.74	1,750.37		23.49		92
109-28	Konink Der Nederlanden.					1,364.53	1,364.53		92
109-29	Long Beach (ex-Ehrenfeld).			43.80					92
109-30	Madagascar (ex-German).								
109-31	Madagascar (ex-German).								
109-32	Madagascar (ex-German).								
109-33	Madagascar (ex-German).								
109-34	Madagascar (ex-German).								
109-35	Madagascar (ex-German).								
109-36	Madagascar (ex-German).								
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109-96	Madagascar (ex-German).								
109-97	Madagascar (ex-German).								
109-98	Madagascar (ex-German).								
109-99	Madagascar (ex-German).								
109-100	Madagascar (ex-German).								

1755	Mercury (ex-Barbarea)	21.60	21.60	138.00	.....	21.60	.....
1812	Martha Washington (ex-German)	.....	114,324.01	1,612.61	.....	138.00	.....
1832	Newport News (ex-Monwald)	38,024.54	4,508.44	.....	.....	1,217.20	.....
1881	Ostefriesland	.....	83.34	.....	.....	5,374.81	.....
1882	Patricia (ex-German)	.....	83.34	.....	.....	83.34	92
1904	Pensacola (German)	29,907.79	478.78	.....	.....	83,615.16	92
1923	Pechontas (ex-German Princess Irene)	.....	50,481.45	80,408.02	.....	1,832.04	.....
1941	Powhatan (ex-Hamberg)	.....	7.34	7.34	.....	35.51	92
1955	Prince Frederick Wilhelm	.....	96.13	96.13	.....	96.13	92
1962	Quincy (ex-German)	.....	64.96	64.96	.....	64.96	92
1974	Rappahannock (ex-German)	25,151.69	903.01	.....	.....	46,772.71	.....
1977	Rijnland (D)	73,880.83	2,301.66	.....	.....	126,120.06	.....
1989	Rijnland (D)	.....	131.04	131.04	.....	131.04	92
1993	Roepat (D)	.....	2.13	2.13	.....	2.13	92
1995	Rondo (D)	.....	3,769.61	3,769.61	.....	3,769.61	92
2049	Samarinda (D)	.....	406.50	406.50	.....	406.50	92
2050	Savannah	80,732.97	7,637.06	7,637.06	.....	7,637.06	92
2213	Ternate (D)	.....	10,376.91	91,109.88	.....	94,492.95	.....
2235	Tjondari (D)	.....	9,957.52	9,957.52	.....	111.72	92
2234	Tjkenbang (D)	.....	1,163.31	1,163.31	.....	10,002.52	92
2267	T. B. 88 (ex-German)	.....	.....	.....	.....	1,163.34	92
2266	T. -117 (ex-German)	.....	.....	.....	.....	1,097.72	92
2278	Veerdijk (D)	.....	3,551.43	3,551.43	.....	243.27	92
8964	V-43	157.00	.....	.....	.....	3,551.43	92
2307	Wachusett (ex-German)	.....	1,468.27	1,468.27	.....	157.00	92
2376	Westelijk (D)	.....	97.18	97.18	.....	1,468.27	92
2437	Zeelandia (D)	18.00	57.17	75.17	.....	97.18	92
2444	Zuiderdijk (D)	.....	4,192.85	4,192.85	.....	75.17	92
	Total	616,270.85	24,739.10	56,601.49	.....	43,040.45	.....
					.....	1,153,468.37	.....

1 All ex-foreign in commission 92 days unless otherwise noted.

2 Credit.

LIGHT TENDERS.

Mr. KELLEY. The next are the light tenders.

Admiral POTTER. The light tenders are vessels which we took over from the Lighthouse Service during the war; we did not have them before and they have since been turned back.

Mr. KELLEY. Did we have those before the war?

Admiral POTTER. No; we did not do that work at all.

Mr. KELLEY. And they are practically out now?

Mr. REED. They have all been turned back and these are really delayed charges.

Mr. KELLEY. At this point put in the tables, together with a memorandum showing that they have been turned back.

Admiral POTTER. Very well.

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
LIGHT TENDERS.											
8003	Arbutus.....						\$10.95	\$10.95	500	May 9, 1917	
8005	Azalea.....						11.05	78.55	429	Apr. 11, 1917	
8006	Columbine.....							442.18			
8008	Camelia.....										
8011	Cypress.....										
8013	Fern.....										
8014	Gardenia.....										
8017	Hibiscus.....										
8024	Juniper.....										
8030	Magnolia.....										
8034	Marigold.....										
8036	Mistletoe.....										
8041	Pansy.....										
8043	Rodgers, John.....										
8043	Sequoia.....										
8046	Sunflower.....										
8049	Woodbine.....										
	Total.....			4,574.06	4,574.06	16,197.54	\$0.34	20,751.26			

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Ton-nage.	Date of first commission.	Months in commission.	
		Accrued pay.	Stores issued, including provisions, medical stores.								
(COAST GUARD.)											
8202	Aqueduct		\$4,596.52	\$4,596.52				800	Nov. 6, 1908		
8205	Apache		9,013.82	9,013.82	\$359.73	\$2.50	9,376.05	708	July 7, 1917		
8207	Arcturion		332.71	332.71				145			
8208	Alert		10,235.31	10,235.31			10,235.31	31			
8209	Algonquin		11,572.04	11,572.04		15,770.08	27,343.92	1,181	Sept. 18, 1908		
8204	Androscegin		16,623.57	16,623.57	447.53	836.05	17,907.15	1,605	July 8, 1906		
8206	Bear		5,786.76	5,786.76			5,786.76	1,700	May 13, 1917		
8209	Calumet				62.00		62.00				
8210	Caswell, Richard		2,782.01	2,782.01			2,782.01	200	Oct. 8, 1918		
8212	Comanche		4,969.24	4,969.24			4,969.24	670	Apr. 11, 1917		
8213	Davey		669.15	669.15	211.12		880.27	182	Aug. 6, 1906		
8215	Golden Gate		158.69	158.69			158.69				
8216	Gresham		21,196.25	21,196.25	5,055.14		26,251.39	1,090	May 30, 1907		
8217	Guard		1.35	1.35			1.35				
8218	Guide		2,065.84	2,065.84			2,065.84				
8219	Guthrie		716.63	716.63	4.34		720.97	145			
8220	Hartley		14.66	14.66							
8221	Hudson		5,621.38	5,621.38			5,621.38	179	Aug. 2, 1918		
8222	Islebe		15,735.97	15,735.97	144.37	2.21	15,882.55	980	Mar. 3, 1893		
8223	MacKinnon		95.54	95.54	45.52		141.06	241			
8225	Mahattan		1,036.74	1,036.74			1,036.74	379			
8226	Manning		34,966.54	34,966.54	10.12	23,950.75	58,926.41	1,155			
8228	Mohawk		3,375.93	3,375.93	940.97		4,316.90	420			
8229	Morrill		5,651.70	5,651.70	133.74		5,785.44				
8230	Onondaga		1,197.94	1,197.94	121.11		1,319.05	1,162			
8231	Ossipee		18,296.71	18,296.71		5,958.57	24,257.28	908	July 26, 1907		
8232	Panama		2,324.20	2,324.20	512.94		2,837.04	451	Apr. 10, 1917		
8233	Panther		196.65	196.65			196.65				
8234	Pearce		21.32	21.32			21.32	350			
8236	Ross, Emma Kate		5,653.26	5,653.26	1,105.50		6,758.76	860			
8237	Seminole		29,916.74	29,916.74	335.80	11,930.99	42,203.16	1,445			
8238	Seneca	\$38.54	12,912.86	12,912.86	121.11		13,033.97	879			
8239	Shoshonish		1,191.70	1,191.70			1,513.27	912	Aug. 12, 1915		
8240	Tallapoosa		19,965.27	19,965.27	432.40	110.71	20,508.47				
8241	Tampa		1,936.76	1,936.76	6.85		1,943.61	131			
8242	Togo		5,673.96	5,673.96	161.68	14,057.36	20,893.00	739	Dec. 27, 1902		

8244	Unalga.....	4.82	4.82	.....	.....	4.82	.....	.....	.....
8245	Winiskimmet.....	25.84	25.84	.....	.....	25.84	.....	.....	1, 181
8246	Wissahicken.....	1, 732.16	1, 732.16	.....	.....	1, 732.16	.....	.....	182
8247	Yamacraw.....	7.56	34, 316.52	.....	831.83	1, 749.09	.....	.....	194
	Total.....	34.10	292, 715.96	292, 750.06	11, 436.45	74, 378.21	.....	.....	1, 082

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced commitments in reserve or ordinary.
COAST GUARD.										
8205	Apache.....			\$1.65	\$1.65			\$1.65		
8203	Algonquin.....			23.59	23.59	\$3,634.28		3,634.28		
8204	Andrescoggin.....			831.30	831.30			831.30		
8212	Comanche.....			6.46	6.46			6.46		
8216	Gresham.....			6.52	6.52			6.52		
8221	Hudson.....			24.16	24.16			24.16		
8223	MacIntac.....									
8225	Manhattan.....						\$1,650.64	1,650.64		
8226	Manning.....					25.00		25.00		
8228	Mohawk.....			303.82	303.82			303.82		
8236	Seminole.....			225.00	225.00			225.00		
8237	Seneca.....			146.69	146.69		10,238.30	10,385.99		
8238	Snohomish.....	\$5.40			5.40			5.40		
8239	Talapooza.....		\$234.46		234.46		7,772.12	8,006.58		
8242	Tuscarora.....			31.84	31.84		5.40	37.24		
8244	Unalga.....			1,881.17	1,881.17			1,881.17		
8247	Yamacraw.....			7.70	7.70	7,711.10		7,718.80		
	Total.....	5.40	234.46	3,469.90	3,709.76	11,370.38	19,667.46	34,747.60		

¹ All out of commission 92 days.

COAST AND GEODETIC SURVEY AND BUREAU OF FISHERIES VESSELS.

Admiral POTTER. The same thing is true as to the vessels of the Coast and Geodetic Survey.

Mr. KELLEY. And the same thing is true of the vessels of the Fish Commission?

Admiral POTTER. No; we keep those for scientific purposes.

Mr. KELLEY. How much did they cost us in 1916?

Admiral POTTER. In 1916 they cost \$113,000.

Mr. FRENCH. When you are operating vessels for other bureaus or departments against what department is the expense charged?

Mr. REED. It is charged against the Navy under an old law which requires us to man and operate vessels for the Fish Commission.

Admiral POTTER. One on each coast; they have a scientist or two on board, but the officers and men are Navy personnel.

Mr. BYRNES. How long have you been doing that?

Admiral POTTER. For about 40 years.

Mr. FRENCH. Is that the only bureau for which you are operating vessels?

Admiral POTTER. Yes, sir.

Mr. FRENCH. How much is that particular item?

Mr. REED. In 1921 it cost \$175,860.99.

Mr. FRENCH. As a matter of fact, then, that is an item which is properly chargeable against the Department of Commerce rather than against the Navy Department?

Admiral POTTER. I think it is in a way; if it were not for the law it would be equitable to make a transfer of appropriations to cover it each year.

Mr. KELLEY. How much was the amount for the first three months?

Admiral POTTER. \$38,442.50.

Mr. OLIVER. Is that service maintained solely for the Bureau of Fisheries or does it incidentally serve naval purposes also?

Admiral POTTER. I do not think that it serves naval purposes.

Mr. OLIVER. Following the line of inquiry suggested by Mr. French, you have a system whereby you carry freight on naval vessels for other bureaus; that is, when you have room on naval vessels you carry their freight?

Admiral POTTER. We do it for the Army.

Mr. OLIVER. But you do it for some of the other departments, do you not?

Admiral POTTER. We have done it for the Department of Commerce.

Mr. OLIVER. In carrying supplies to Alaska?

Admiral POTTER. Yes, sir.

Mr. FRENCH. One thing I had in mind in that connection was this: In the Interior Department bill, in the Bureau of Mines, we came across some expenditures last year that were charged to the Interior Department for the benefit of the Navy in connection with your oil reserves and development work in California, and it struck the members of that subcommittee that whatever money was expended for your purposes ought to be authorized in this bill rather than in the Interior Department bill and ought to be charged to you instead of to the Interior Department. Now, we have the same situation,

except it is reversed, and it seems to me here is an item that ought to be charged against the Department of Commerce instead of to you. Of course, I do not object to your doing the work, but it is merely a matter of where it should be charged.

Mr. BYRNES. We provided for that, too.

Mr. FRENCH. Yes; in the Interior Department bill we left it out entirely; we left the authority with the Bureau of Mines to do your work, but gave them no money with which to do it, so that in making appropriations for your work you will have to take that into consideration and the committee will need to appropriate such amount as may be necessary for your oil work, but your department, from time to time, transferring the money to the Bureau of Mines.

Mr. BYRNES. If there is no estimate for it the Navy Department ought to make an estimate for the money necessary to do that work.

Mr. FRENCH. Yes; that will have to be done.

Mr. KELLEY. As I understand it, all of the light vessels have been turned back?

Admiral POTTER. Yes, sir; only \$2.87 was expended in the first quarter of 1922.

1921.

No.	Name of vessel.	Title C.					Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including clothing and commuted rations.	Stores issued, including provisions and medical stores.	Total operating expenses.	Equipage.					
COAST AND GEODETIC SURVEY.											
9250	Bache.....			\$1,157.04	\$1,157.94	\$3,198.08		\$4,355.02	472	Sept. 24, 1917	
9251	Explorer.....			21.98	21.98			21.98	450	June 3, 1918	
9252	Hydrographer.....			2.05	2.05	\$.05			148		
9253	Isis.....			1,530.11	1,530.11	650.52		2,200.63	519	Oct. 1, 1917	
9254	Surveyor.....			1,691.77	1,691.77	2,062.39		3,696.17	1,143	Oct. 22, 1917	
Total.....				4,433.75	4,433.75	5,908.04	152.01	10,493.80			

1922.

[First quarter.]

No.	Name of vessel.	Title C.					Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.	Total operating expenses.	Equipage.			Days in full commission.	Operating with reduced complements in reserve or ordinary.
COAST AND GEODETIC SURVEY.										
9254	Explorer.....			\$128.00	\$128.00			\$128.00		92
9255	Isis.....			245.87	245.87			245.87		92
9256	Surveyor.....			96.31	96.31			96.31		92
	Total.....			460.18	460.18			460.18		

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and rations.	Stores issued, including provisions and medical stores.							
	BUREAU OF FISHERIES.										
8252	Albatross.....	\$108,194.28	\$222.75	\$20,147.66	\$126,564.67	\$194.01	\$5.28	\$126,763.96		Nov. 19, 1917	
8253	Fish Hawk.....	36,563.46		12,207.22	48,770.68	300.00	542.78	49,073.46		May 12, 1917	
1913	Philarope.....			83.57	83.57			83.57	55	Dec. 6, 1917	
	Total.....	142,757.72	222.75	32,438.45	175,418.92	105.00	548.06	175,860.99			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.		Days out of commission.
		Accrued pay.	Miscellaneous expense, including communications and rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	
	BUREAU OF FISHERIES.										
8252	Albatross.....	\$22,996.30		\$3,908.47	\$26,904.77	\$190.77		\$27,095.54			92
8253	Fish Hawk.....	8,761.06		2,585.90	11,346.96			11,346.96			92
	Total.....	31,757.36		6,494.37	38,251.73	190.77		38,442.50			

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.							
LIGHT VESSELS.										
8263	Light vessel No. 3.						\$450.04			
8265	Light vessel No. 5.		\$1.30	\$1.30			1.30			
8273	Light vessel No. 13.			24.99			24.99			
8276	Light vessel No. 16.	\$24.99	4,307.63	4,307.63			4,307.63			
8304	Light vessel No. 44.					43.37	43.37			
8306	Light vessel No. 46.					465.96	465.96			
8308	Light vessel No. 48.		49.35	49.35			49.35			
8309	Light vessel No. 49.		106.78	106.78			106.78			
8311	Light vessel No. 51.		345.85	345.85			345.85			
8312	Light vessel No. 52.	294.68		294.68		79.45	294.68			
8314	Light vessel No. 54.		1.30	1.30			1.30			
8315	Light vessel No. 55.					15.67	15.67			
8326	Light vessel No. 66.		2.45	2.45			2.45			
8328	Light vessel No. 68.		10.27	10.27			10.27			
8329	Light vessel No. 69.		449.46	449.46		663.41	1,152.87			
8330	Light vessel No. 70.					652.15	652.15			
8332	Light vessel No. 72.	337.94		337.94		83.67	421.61			
8336	Light vessel No. 76.		85.05	85.05		1,421.53	1,506.58			
8340	Light vessel No. 80.		4.25	4.25			4.25			
8343	Light vessel No. 83.					235.80	235.80			
8347	Light vessel No. 87.		2,770.96	2,770.96			2,770.96			
8348	Light vessel No. 88.					13.27	13.27			
8351	Light vessel No. 91.		333.21	333.21		56.63	389.84			
8352	Light vessel No. 92.					11.04	11.04			
8353	Light vessel No. 93.					876.05	876.05			
8354	Light vessel No. 94.	4.18		4.18		215.24	215.24			
8361	Light vessel No. 101.					4,437.57	4,437.57			
Total.		661.79	8,507.76	9,166.55		9,687.33	18,856.98			

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
LIGHT VESSELS.										
8304	Light vessel No. 44						\$6.72	\$6.72		92
8307	Light vessel No. 47		\$0.40	\$0.40				.40		92
8340	Light vessel No. 80		14.25	14.25				14.25		92
	Total.....		13.85	13.85			6.72	2.87		.....

1 Credit.

MISCELLANEOUS VESSELS.

Mr. KELLEY. Then we have a miscellaneous list. Did we have miscellaneous list in 1916?

Admiral POTTER. Yes; we had a considerable list. But it was practically limited to receiving ships and yard craft.

Mr. KELLEY. How much was it in 1916?

Admiral POTTER. \$4,414,667.76.

Mr. KELLEY. And in 1921?

Admiral POTTER. \$25,470,160.90, and for the first quarter of 1922 \$4,459,463.34.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including committed rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
	MISCELLANEOUS.										
980	Receiving ship at Portsmouth.	\$10,658.95	\$168.95	.....	\$10,827.90	.....	\$10,827.90				
981	Receiving ship at Boston.	419,192.99	29,338.39	\$26,712.98	475,244.36	.....	475,244.36				
982	Receiving ship at Newport.	65,647.75	3,951.45	10,519.52	80,118.72	.....	80,118.72				
983	Receiving ship at New York.	844,117.16	36,258.52	73,591.71	953,967.39	.....	954,478.44				
984	Receiving ship at Philadelphia.	397,198.00	17,904.93	38,580.03	453,683.96	.....	453,714.17				
985	Receiving ship at Norfolk.	826,914.29	23,804.41	235,712.74	1,096,431.44	45.21	1,096,455.19				
986	Receiving ship at Charleston.	25,259.43	8,585.24	225.46	34,070.13	23.75	34,075.13				
987	Receiving ship at Mare Island.	.....	.....	331.62	331.62	.....	331.62				
988	Receiving ship at San Francisco.	247,857.32	1,660.22	166,415.09	415,932.63	.....	416,267.68				
989	Receiving ship at Puget Sound.	173,610.40	9,518.12	31,607.81	214,736.33	.....	216,124.04				
990	Receiving ship at Cavite.	26,997.44	237.79	1,242.87	28,478.10	1,387.71	28,478.10				
991	Receiving ship at Olongapo.	10,177.49	525.80	3,606.73	14,310.12	70.87	14,386.99				
992	Reserve torpedo division, Annapolis.	32,317.40	22.50	6,558.23	38,898.13	.....	38,903.38				
993	Reserve torpedo division, Charleston.	3,785.24	49.50	3,399.24	7,233.98	.....	7,233.98				
994	Yard craft.	81,122.30	12,483.78	32,970.07	126,576.15	.....	175,419.64				
995	Ships, Naval Academy.	172,871.41	1,644.76	31,017.27	205,533.44	49,043.49	265,583.44				
996	Seamen's quarters, Washington.	49,750.85	439.09	3,928.62	54,127.56	.....	54,133.18				
998	Target rafts.	.....	.....	.....	.....	89,043.36	89,043.36				
999	Airships.	.....	5,874.57	.....	5,874.57	57,722.17	63,596.74				
	Total.	3,397,475.42	152,468.12	666,419.99	4,216,363.53	198,304.23	4,414,667.76				
	Equipage.	.....	.....	.....	.....	.....	1,103,666.94				
	Total.	.....	.....	.....	.....	.....	5,518,334.70				

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations, medical stores.							
MISCELLANEOUS.										
A-1 house-boat)										
1001	Albacore.					\$2.10	\$2.10			
1021	Alben.	\$5.50		\$5.50		213.20	213.30			
1034	Arthur and Eddie.				\$4.00		5.50			
1039	Athens.					117.02	117.02			
1068	Avoet.					.95	4.36			
1099	Berry.	.50	\$3.41	3.41			.50			
3540	Boston.					637.60	49,256.80			
1146	Blackburn, Thomas.	89.21	42,211.74	42,211.74	6,407.64		94.67			
1398	Burton, George.	3.10	189.26	192.36			192.36			
1177	Canoga.		57.75	57.75			57.75			
1212	Choctaw.					138.98	138.98			
1430	Clark, George.		32.05	32.05		89,526.51	89,558.56			
1548	Clay, John.		91.96	91.96		91.96	91.96			
1220	Clifton.				48.33	67.30	59.58			
1431	Cochran, George.		20.35	20.35			20.35			
1549	Collins, John.		86.43	86.43			86.43			
7007	Commerce.		6,501.20	6,501.20	245.78	6,840.09	13,587.07			
1224	Cokeskil.		23	23	257.49		257.72			
8983	Crane ship No. 1 (ex-Kearsarge).		2,506.80	2,506.80	62.49	819,318.45	821,889.74			
8997	Crawley, Gene.	3,670.51		3,670.51			3,670.51			
1244	Cresson.		762.00	762.00		178.13	762.00			
1248	Curacao.		216.48	216.48			394.61			
2415	Darnold, William.		15.66	15.66			15.66			
1271	Derry.	.80		.80			.80			
1278	Doorn, Anton.				9.15		9.15			
1267	Dorothy E. Price.	5.50		5.50			5.50			
1260	Duncan, John.		12.62	12.62			12.62			
1310	Edgchill.				12.58		12.58			
1311	Edgemont.		21.00	21.00	12.58		33.58			
7009	Empress.		10,281.52	10,281.52		73.17	10,254.60			
6000	East Wind.						60.00			
6031	Emilia.	49.00		49.00		918.17	967.17			
1366	Ensign.					428.66	428.66			
1369	Ensign, John.	2.91	19.46	19.46			22.37			
1370	Ensign.	10.00		10.00			10.00			

[illegible]

Mr. KELLEY. This item shows that in 1921, \$1,763,239.98 was for repairs and alterations to ships. Could you tell us whether the word "ships" is used to include barracks?

Admiral POTTER. It is not.

Mr. KELLEY. It might be of value to know what part would be for the ships, because it seems to me as though that is a large amount to put upon any actual ship.

Admiral POTTER. Much of it is evidently for ship charges direct. For instance, the *Nennette* had repairs and equipage issues of \$227,000, and then the *Pyro* had \$95,000.

Mr. KELLEY. Much of that does not come under barracks?

Admiral POTTER. None.

Mr. KELLEY. What would you do with a voucher that came through for repairs on barracks out of an appropriation for ships?

Admiral POTTER. Repairs on barracks out of an appropriation for ships?

Mr. KELLEY. Yes.

Admiral POTTER. I think I would be inclined to ascertain what law was.

Mr. KELLEY. I mean if the barracks were used as a receiving

Admiral POTTER. Such a thing would be chargeable against a yard and docks appropriation, and if it came prepared otherwise I hope I would observe it and ascertain the legal authority for it.

Mr. KELLEY. You would not be inclined to repair barracks except out of a yards and docks appropriation or some special appropriation?

Admiral POTTER. That would be my offhand opinion. Of course, I would have to see the particular item and determine about merits.

COST OF NAVAL DISTRICTS.

Mr. KELLEY. What did the naval districts cost in 1916?

Admiral POTTER. The naval districts were united with the navy yards at that time and there was no distinguishing amount. In 1921 the district craft cost \$4,307,136.97.

Mr. KELLEY. Those include some district craft distinguished from any craft that we have been considering heretofore?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Why do you not put in a list of those vessels? We will have to have that, Admiral, by districts.

Admiral POTTER. We can get that from Admiral Coontz.

Mr. KELLEY. Of course, this is a large sum of money, \$4,307,136.97 for districts and district vessels, without having a list of the vessels?

Admiral POTTER. We have not the list in the bureau now. I ask Operations for the vessels.

Mr. KELLEY. Take the third naval district. In 1921 the cost, independent now of all other vessels that we have been talking about heretofore, cost \$1,472,048?

Admiral POTTER. Yes, sir.

Mr. KELLEY. What is the nature of the district craft?

Admiral POTTER. They are all sorts of small vessels. I think, perhaps, Admiral Coontz will be the best man to give you the particulars.

Mr. KELLEY. It will be comparatively easy to give us a list of boats included in this expense of \$4,307,136 in 1921?

Col. ROOSEVELT. You want that for 1921, because the 1921 list does not correspond with this here, because we have already been over the 1921 craft.

Mr. KELLEY. How much was the 1922 cost of the districts, including district craft?

Admiral POTTER. \$819,985.22.

Col. ROOSEVELT. That is an estimate of 28 per cent over the year before.

Mr. KELLEY. The reduction in operating cost has been brought down lower.

Please put into the record at this point the naval district craft for 1921 and for the first three months of 1922, giving the name of the ship or number, if it has not a name, for each district, segregate the ships so we will know the type of ship, and all about it.

Admiral POTTER. I think the information can best be furnished by Admiral Coontz.

TUESDAY, MARCH 7, 1922.

ALLOCATION AND DISPOSITION OF SHIPS AND THEIR COMPLEMENTS.

TATEMENTS OF HON. EDWIN DENBY, SECRETARY OF THE NAVY; COL. THEODORE ROOSEVELT, ASSISTANT SECRETARY OF THE NAVY; ADMIRAL ROBERT E. COONTZ, CHIEF OF NAVAL OPERATIONS; LIEUT. COMMANDER HARRY W. HILL, AID TO THE ADMIRAL; CAPT. PHILIP WILLIAMS, ASSISTANT TO BUREAU OF NAVIGATION; CAPT. EDWARD C. KALBFUS, MATERIAL DIVISION, OPERATIONS; COMMANDER LAMAR R. LEAHY, AND MR. CLYDE REED, SPECIAL ASSISTANT, BUREAU OF SUPPLIES AND ACCOUNTS.

FIRST-LINE BATTLESHIPS TO BE KEPT IN COMMISSION BY TREATY.

Mr. KELLEY. We have with us this morning Admiral Coontz and a number of his assistants who will testify directly. The Secretary and Assistant Secretary are also present.

Admiral Coontz, the matter that we have in mind particularly to-day is the question of ships of the Navy, and we would like to have from you a statement covering by number and name each ship of each group, approximating as nearly as you can the personnel required for such ships. If you will take the annual report of the Paymaster General of the Navy for 1921, we will start at the beginning and carefully run down the list. I think if we do that, that by night, perhaps, we will have a pretty clear view of what is required. Now, the first ship on the list is the *South Carolina*. Do you intend to have that ship in commission next year?

Admiral COONTZ. We do not, provided the treaty goes through.

Mr. KELLEY. So we may eliminate the *South Carolina* and likewise the *Michigan*?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Do you intend to have the *Delaware* in commission?

Admiral COONTZ. We intend to have the *Delaware* in commission if the treaty passes, until she is replaced by the *Colorado*, we will say.

Mr. KELLEY. How many men do you calculate you will require on the *Delaware*?

Admiral COONTZ. I would like to have Admiral Washington answer as to that. The Secretary's estimate is 95 per cent of the official complement.

Mr. KELLEY. I notice from a statement filed on April 1, 1921, that the complement of the *Delaware* was 1,263.

Admiral COONTZ. I would like, however, to verify these figures by Admiral Washington.

Mr. KELLEY. Ninety-five per cent of that would be about 1,200 in round numbers. Shall we put her down at 1,200?

Admiral COONTZ. I would like to have it put down temporarily that way until we can hear from Admiral Washington or Captain Williams.

Mr. KELLEY. Have you the actual number of men that were carried on the *Delaware* before the war?

Admiral COONTZ. No, sir.

Colonel ROOSEVELT. I can give you that approximately. It approximately 830.

Mr. KELLEY. You intend to keep in commission, if everything g well with the treaty, the *Delaware*, the *North Dakota*, the *Florida*, *Utah*, the *Wyoming*, the *Arkansas*, the *New York*, the *Texas*, *Nevada*, the *Oklahoma*, the *Pennsylvania*, the *Arizona*, the *New Mex* the *Mississippi*, the *Idaho*, the *Tennessee*, the *California*, and *Maryland*?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. That makes 18?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. We would like to have you insert in the recor table showing the names of the ships that are to be kept in comi sion during the coming year, with the complements you are ask for, and also a statement showing the complements in 1916.

Admiral COONTZ. We will do that.

Colonel ROOSEVELT. We have the total of the complement he

Mr. KELLEY. I would like to have it by ships. We would lik have at this point the statement I have indicated covering th battleships.

Admiral COONTZ. We will supply that.

List of United States naval vessels to be retained in commission after June 30, 1923, classified according to standard nomenclature.

[Based on 90,000 enlisted strength plus 6,000 apprentice seamen. Men on board July 1, 1916, given possible. Proposed allowance for 1923 same as that given for 1922.]

	Men on board, July 1, 1916.	Al
18 battleships, first line:		
Atlantic Fleet—		
Delaware.....	830	
North Dakota.....	830	
Florida.....	837	
European waters (flag), Utah.....	829	
Atlantic Fleet—		
Wyoming.....	915	
Arkansas.....	916	
Pacific Fleet—		
New York.....	902	
Texas.....	902	
Nevada.....		
Oklahoma.....		
Pennsylvania.....	951	
Arizona.....		
New Mexico.....		
Mississippi.....		
Idaho.....		
Tennessee.....		
California.....		
Maryland (assigned to Pacific Fleet: now flagship of commander in chief Atlantic Fleet).....		
Total.....		
2 battleships, second line:		
Illinois (loaned to State of New York, training Naval Militia).....	605	
Connecticut (to be replaced by armored cruiser Seattle if treaty is signed).....	844	
Total.....		
Battle cruisers, first line, none. Two to be converted to aircraft carriers.		
5 cruisers, second line:		
Rochester, Atlantic Fleet (destroyers (flag) at Charleston, S. C.).....	453	
Huron, Asiatic Fleet (flagship).....	788	

List of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allow- ance for 1922.
5 cruisers, second line—Continued.		
Seattle navy yard, Puget Sound, out of commission (Seattle to replace Connecticut if treaty is signed).....	840	791
Pueblo (to replace Utah in European waters, later).....	778	791
Charleston, Pacific Fleet (destroyer flagship, immobile).....	649	649
Total.....		2,775
3 light cruisers, first line, Omaha (commission when completed May 31, 1922) (two others when completed, 419 men on each).....		1,257
5 light cruisers, second line:		
Special service squadron—		
Birmingham.....	356	300
Denver.....	274	288
Galveston.....	274	288
Tacoma.....	274	288
Cleveland.....	274	288
Total.....		1,452
1 aircraft carrier, second line, Langley (ex-Jupiter), being converted at navy yard, Norfolk; date of completion, May 1, 1922; will be commissioned about Apr. 1, 1922.....		339
3 mine layers, second line:		
Pacific Fleet—		
Baltimore, mine squadron; 2 at Pearl Harbor to go out of commission when relieved by Aroostook.....	320	334
Aroostook (aircraft tender; goes to mine force when relieved by Langley).....		250
Atlantic Fleet, Shawmut (mine squadron).....		369
Total.....		953
126 destroyers, first line:		
Distribution of 90 per cent complement destroyers to be retained in commission—		
With Atlantic Fleet.....	19	
With Pacific Fleet.....	57	
With Asiatic Fleet.....	19	
In European waters.....	8	
103×102.....		10,506
Distribution of 50 per cent complement destroyers to be retained in commission at Charleston.....	23×57	1,311
126.....		
SUMMARY OF DESTROYERS, INCLUDING LIGHT MINE LAYERS, CONVERTED FROM DESTROYERS, FIRST LINE.		
Now on Navy list:		
Destroyers, first line.....	283	
Destroyers, second line.....	21	
Light mine layers (converted destroyers, first line).....	14	
Total destroyer hulls (including those in commission and out of commission).....		318
Destroyers, second line, none.		
10 light mine layers:		
Atlantic mine squadron—		
Murray.....		99
Israel.....		99
Maury.....		99
Mahan.....		99
Asiatic mine squadron, Hart.....		99
Pacific mine squadron—		
Ingraham.....		99
Ludlow.....		99
Burns.....		99
Anthony.....		99
Asiatic mine squadron, Rizal.....		99
Total.....		990
41 submarines, first line:		
16 O's.....		432
27 R's.....		729
38 S's.....		1,292
Total.....		2,453
3 fleet submarines, first line, 3 T's.....		126

List of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allowance for 1922.
27 submarines, ¹ second line. (two-thirds complement):		
8 H's (3 in commission 1916).....	66	430
8 K's.....	192	
8 L's.....	176	
3 N's.....		
35 patrol vessels, Eagles:		
Eagle 6 (at Pearl Harbor, engaged in anti-submarine tactics).....		10
Eagle 7 (at Pearl Harbor, engaged in anti-submarine tactics).....		10
Eagle 8 (at Pearl Harbor, engaged in anti-submarine tactics).....		10
Eagle 9 (fifth naval district, training reservists).....		10
Eagle 11 (duty with submarines, San Pedro).....		(²)
Eagle 12 (training reservists, eleventh naval district).....		10
Eagle 13 (training reservists, third naval district).....		10
Eagle 14 (duty with submarines at Pearl Harbor).....		(²)
Eagle 15 (training reservists, third naval district).....		10
Eagle 17 (duty with submarines, Hampton Roads).....		(²)
Eagle 19 (training reservists, first naval district).....		10
Eagle 23 (on duty, Quantico, freight and passengers to Washington).....		26
Eagle 23 (training reservists, third naval district).....		10
Eagle 27 (training reservists, third naval district).....		10
Eagle 29 (training reservists, first naval district).....		10
Eagle 31 (duty with submarines at Coco Solo).....		(²)
Eagle 33 (duty with submarines, New London).....		(²)
Eagle 34 (training reservists, eleventh naval district).....		10
Eagle 35 (training reservists, twelfth naval district).....		10
Eagle 36 (training reservists, eighth naval district).....		10
Eagle 38 (training reservists, thirteenth naval district).....		10
Eagle 39 (training reservists, seventh naval district).....		10
Eagle 40 (duty air station, Pearl Harbor).....		(²)
Eagle 42 (training reservists, first naval district).....		10
Eagle 44, training reservists, third naval district.....		10
Eagle 47, training reservists, twelfth naval district.....		10
Eagle 48, training reservists, third naval district.....		10
Eagle 51, training reservists, third naval district.....		10
Eagle 52, training reservists, fourth naval district.....		10
Eagle 54, training reservists, third naval district.....		10
Eagle 55, training reservists, third naval district.....		10
Eagle 56, training reservists, Washington, D. C.....		10
Eagle 57, training reservists, thirteenth naval district.....		10
Eagle 58, training reservists, Pearl Harbor.....		10
Eagle 59, training reservists, third naval district.....		10
Total.....		
SUMMARY OF EAGLES.		
In commission (35):		
Training reservists.....	25	
Submarine duties.....	8	
Air station duty.....	1	
Ferry, Washington to Quantico.....	1	
Total.....	35	
Out of commission and in ordinary.....	19	
Total.....	54	
43 patrol vessels, submarine chasers:		
Submarine chaser 57, Naval Academy, intermittently training midshipmen.....		4
Submarine chaser 63, St. Louis, training reservists.....		3
Submarine chaser 64, St. Louis, training reservists.....		3
Submarine chaser 69, St. Petersburg, training reservists.....		3
Submarine chaser 102, Naval Academy, intermittently training midshipmen.....		4
Submarine chaser 103, New Haven, Conn., training reservists.....		3
Submarine chaser 104, Tampa, Fla., training reservists.....		3
Submarine chaser 143, New York, training reservists.....		3
Submarine chaser 154, seventh naval district.....		8
Submarine chaser 159, eighth naval district, station duties, New Orleans.....		
Submarine chaser 185, Dahlgren, Va., proving ground duties.....		12
Submarine chaser 191, eighth naval district, training reservists.....		3
Submarine chaser 192, Indianhead, Md., proving ground duties.....		11
Submarine chaser 210, navy yard, Washington, training reservists.....		3
Submarine chaser 214, Haiti activities, marine brigade, Haiti.....		17
Submarine chaser 223, Haiti activities, marine brigade, Haiti.....		17

¹ Total complement, 430.

² With submarine base.

³ Manned with Air Service personnel.

of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allowance for 1922.
patrol vessels, submarine chasers—continued.		
Submarine chaser 224, New York, training reservists		3
Submarine chaser 229, Naval Academy, intermittently training midshipmen		4
Submarine chaser 231, Naval Academy, intermittently training midshipmen		4
Submarine chaser 237, Naval Academy, intermittently training midshipmen		4
Submarine chaser 251, Indianhead, Md., out of commission		
Submarine chaser 253, Haiti activities, marine brigade, Haiti		17
Submarine chaser 271, Stamford, Conn., training reservists		3
Submarine chaser 277, eleventh naval district, duty with reserve destroyer force		7
Submarine chaser 278, eleventh naval district, duty with reserve destroyer force		7
Submarine chaser 284, fifteenth naval district, submarine operations		7
Submarine chaser 285, fifteenth naval district, seaplane tender		7
Submarine chaser 287, fifteenth naval district, undergoing overhaul		7
Submarine chaser 303, twelfth naval district, calibration compasses		7
Submarine chaser 306, eleventh naval district		7
Submarine chaser 326, Naval Academy, intermittently training midshipmen		4
Submarine chaser 328, Naval Academy, intermittently training midshipmen		4
Submarine chaser 330, ninth naval district, training reservists		3
Submarine chaser 340, Guantanamo, St. Thomas		9
Submarine chaser 408, first naval district, general district duties		7
Submarine chaser 412, ninth naval district, training reservists		3
Submarine chaser 419, ninth naval district, training reservists		3
Submarine chaser 431, ninth naval district, ordnance, third naval district, for training reservists		3
Submarine chaser 432, ninth naval district, at Cleveland, training reservists		3
Submarine chaser 433, ninth naval district, ordnance, third naval district, training reservists		3
Submarine chaser 437, ninth naval district, ordnance, third naval district, training reservists		3
Submarine chaser 440, Naval Academy, intermittently training midshipmen		4
Submarine chaser 443, San Domingo, duties connection military government Dominican Republic		17
Submarine chaser 444, San Domingo, duties connection military government Dominican Republic		17
Submarine chaser 96 and 338,* at Constantinople, being used until can be sold		
Total		261
SUMMARY, SUBCHASERS.		
ing midshipmen	8	
g reservists	16	
and naval station duties	17	
ine and seaplane duties	2	
Total	43	
ut of commission and on sale	38	
Total	81	
nd vessels, gunboats:		
ilmington, Asiatic Fleet, Yangtze patrol at Amoy	169	162
Paos, Asiatic Fleet, Yangtze patrol	45	46
Sacramento, Asiatic Fleet, assigned (orders to proceed temporarily withheld)	135	152
Monocacy, Asiatic Fleet, Yangtze patrol	45	46
Asheville, Asiatic Fleet, assigned (orders to proceed temporarily withheld)		148
Elcano, Asiatic Fleet, Yangtze patrol	93	93
Pampanga, Asiatic Fleet, South China patrol	29	30
Qoyros, Asiatic Fleet, Yangtze patrol	54	55
Valdeobos, Asiatic Fleet, Yangtze patrol	54	55
Total		787
patrol vessels, yachts:		
Mayflower, navy yard, Washington (President's yacht)	172	160
Vixen, naval station, St. Thomas (station ship)	74	72
Syph, navy yard, Washington (Navy Department tender)	28	32
Adonis, San Domingo City (station ship and transport for military government)		66
Isabel, Asiatic Fleet, Yangtze patrol		83
Scorpion, Constantinople station ship		132
Total		545
auxiliaries, destroyer tenders:		
Melville	315	449
Black Hawk		440

*Manned by men from Scorpion or destroyers.

List of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	All a f ff
6 auxiliaries, destroyer tenders—Continued.		
Bridgeport.....		
Altair.....		
Dancbola.....		
Rigel.....		
Total.....		
Auxiliaries, submarine tenders:		
Fulton.....	129	
Bushnell.....	145	
Beaver.....		
Camden.....		
Rainbow.....	217	
Savannah.....		
Canopus.....		
Total.....		
Auxiliary, aircraft tender:		
Wright, air squadron, Atlantic.....		
Auxiliaries, repair ships:		
Prometheus, Atlantic Fleet (train).....	230	
Vestal, Pacific Fleet (train).....	230	
Total.....		
Auxiliaries, store ships:		
Bridge, Atlantic Fleet (train).....		
Rappahannock, Pacific Fleet (train).....		
Arctic, Atlantic Fleet (train).....		
Total.....		
4 auxiliaries, colliers:		
Proteus, Atlantic Fleet.....	91	
Nereus, Atlantic Fleet.....	91	
Orion, Atlantic Fleet.....	91	
Jason, Pacific Fleet.....	91	
Total.....		
10 auxiliaries, oilers:		
Arethusa, N. T. S., Atlantic.....	43	
Brazos, Atlantic Fleet.....		
Chiyama, Pacific Fleet.....		
Kanawha, Pacific Fleet.....	76	
Neches, Pacific Fleet.....		
Patoka, N. T. S., Pacific.....		
Pecos, Asiatic Fleet.....		
Ramapo, N. T. S., Pacific.....		
Sapelo, N. T. S., Atlantic.....		
Trinity, N. T. S., Atlantic.....		
Total.....		
2 auxiliaries, ammunition ships:		
Pyro, N. T. S.....		
Nitro, N. T. S.....		
Total.....		
8 auxiliaries, cargo ships:		
Kittery.....		
Newport News.....		
Bath.....		
Capello.....		
Syrius.....		
Vega.....		
Regulus.....		
Beaufort.....		
Total.....		

United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allowance for 1922.
es, transports:		
erson.....		397
ne.....		222
nont.....		214
al.....		833
ies, hospital ships:		
.....		361
.....		348
al.....		709
ries, fleet tugs:		
cook, on duty with Atlantic Fleet.....		39
am, Guantanamo, general towing.....	34	
Guam, island duties.....		39
io, Samoa, island duties.....	49	54
la, Haiti, island duties.....	27	34
.....	45	
.....	45	
.....	45	
mac, Santo Domingo, island towing.....	36	42
ma, on duty with Pacific Fleet.....	49	54
usse, St. Thomas, island duties.....		39
.....	26	
tal.....		340
SUMMARY OF FLEET TUGS.		
ts.....	2	
stations.....	6	
tal.....	8	
aries, mine sweepers:		
in, Guantanamo, train, Atlantic.....		45
low, Bremerton, thirteenth district.....		41
ger, Pearl Harbor, mine squadron, Pacific.....		54
imal, San Pedro, train, Pacific.....		45
ew, Guantanamo, mine squadron, Atlantic.....		54
b, Cavite, mine squadron, Asiatic.....		54
il, Guantanamo, train, Atlantic.....		45
ridge, San Diego, train, Pacific.....		45
olink, Guantanamo, train, Atlantic.....		45
c, Guantanamo, mine force, Atlantic.....		54
l, Charleston, air squadron, Atlantic.....		45
at, San Diego, train, Pacific.....		45
fisher, San Pedro, train, Pacific.....		45
l, Guantanamo, train, Atlantic.....		45
on, New York yard, submarine salvage vessel.....		54
gull, Pearl Harbor, mine squadron, Pacific.....		54
i, San Diego, train, Pacific.....		45
gun, Pearl Harbor, mine squadron, Pacific.....		54
oorwill, Pearl Harbor, mine squadron, Pacific.....		54
a, Cavite, mine squadron, Asiatic.....		54
nk, Guantanamo, mine squadron, Atlantic.....		54
morant, Philadelphia, special duty, Bureau of Ordnance.....		54
net, San Pedro, seaplane tender, Pacific.....		42
ard, Guantanamo, mine squadron, Atlantic.....		54
pper, Miami, air squadron, Atlantic.....		45
o, Guantanamo, train, Atlantic.....		45
tal.....		127
SUMMARY OF MINE SWEEPERS.		
c, train.....	5	
train.....	5	
c, air squadron.....	2	
c, mine squadron.....	4	
c, mine squadron.....	4	
c, mine detachment.....	2	
air tender.....	1	
ine salvage.....	1	
radio calibration.....	1	
of Ordnance, experimental purposes.....	1	
	26	

Crews of these tugs are included in the "forces afloat," those of the remaining 29 are included in establishments."

List of United States naval vessels to be retained in commission after June 30, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.
Loaned to Shipping Board.....	3
To be loaned to Coast and Geodetic Survey.....	2
Out of commission.....	18
Total.....	49
4 auxiliaries, miscellaneous:	
Hannibal, survey ship, now at work, coast Honduras.....	143
General Alava, Asiatic station, transport, Cavite to Olongapo.....	88
Paducah, navy yard, Portsmouth, assigned ninth naval district for United States Naval Reserve Force.....	160
Gold Star, fitting out at Philadelphia; Alaska radio repair ship; replaces Saturn.....	
Antares, target repair ship.....	
Procyon, target repair ship.....	
Total.....	
25 unclassified:	
NOTE.—Men on receiving ships are carried under "shore establishments"; men on vessels training naval reserves belong to "forces afloat."	
Cheyenne, ⁵ training ship, U. S. Naval Reserve Force, fifth district, Baltimore.....	210
Essex, ⁵ ninth naval district, training, U. S. Naval Reserve Force.....	377
Gopher, ⁵ ninth naval district, training, U. S. Naval Reserve Force.....	6
Hawk, ⁵ ninth naval district, training, U. S. Naval Reserve Force.....	12
.....	78
.....	38
.....	638
.....	35
.....	91
.....	55
Wilmette, ⁵ ninth naval district, training, U. S. Naval Reserve Force.....	
Wolverine, ⁵ fourth naval district, training, U. S. Naval Reserve Force.....	82
Yantic, ⁵ ninth naval district, training, U. S. Naval Reserve Force.....	
Total chargeable to forces afloat.....	
Bureau of Fisheries—	
Albatross.....	
Fish Hawk.....	
Total.....	
Flag complement.....	
Fleet aviation.....	
Total.....	
Grand total.....	

⁵ The crews of these vessels are included in the "forces afloat"; those of the remainder are included "shore establishments."

HOUSE OF REPRESENTATIVES,
COMMITTEE ON APPROPRIATIONS.
Washington, D. C., March 20, .

MY DEAR CAPTAIN: The inclosure has been returned with the manuscript of testimony of the 7th instant, which you submit as an insert in response to my but it is not as complete as I desire it, it is not clearly headed, and it is differently than the classification used in the first day's hearings, of which it is part. This, of course, would make it very confusing to anyone reading the list.

The Chief of Naval Operations presented to the committee at the open hearings a "List of vessels to be in commission after June 30, 1922, tabular in accordance with classification of annual report of the Paymaster General for the fiscal year 1921—Statement No. 4," and the first day's hearings were conducted in accordance with such submission. Therefore, what I want is a list prepared in accordance with that classification, class by class and vessel by vessel, and each (1) the actual number of men aboard on July 1, 1916, or some earlier date, to be specified; (2) the actual number of men aboard such vessels on July 1, 1922, so as to conform with the data supplied the House Naval Committee by said committee as Circular No. 42, and used at our hearings. I am sure you complements you are proposing for the fiscal year 1923. Such is the statement I want and if I did not make myself clear I am sorry that it is necessary to occasion you additional work. It is quite important that I have this revised table Tuesday after

Under column 2 of the table please put an asterisk (*) before the number of men on board a vessel which will be engaged upon different duties in 1923, necessitating additional or less personnel, with a general explanatory footnote, as, for example, the *Pueblo* and *Seattle*, and put a double asterisk (**) in column 2 before the number of men on board a vessel which is doing duty taking personnel chargeable to the shore establishment, as, for example the *Pueblo*, now used as a receiving ship.

I notice in the inclosure that you include both the *Connecticut* and the *Seattle*. If the latter is to relieve the former I do not see why you count the men on both. Please watch out for such things in the new statement.

I also notice that you state the inclosure is based on 90,000 enlisted men, plus 6,000 apprentices. Please bear in mind that the classification submitted at the first day's hearings was not submitted pursuant to any suggestion or request that it be confined to any particular number of men.

Kindly return the inclosure with your revised statement, of which latter two copies are required.

Very sincerely,

P. H. KELLEY,
Chairman Naval Subcommittee.

Capt. PHILIP WILLIAMS, U. S. Navy,
Bureau of Navigation, Navy Department.

NAVY DEPARTMENT,
Washington, March 22, 1922.

MY DEAR MR. KELLEY: Replying to your letter of March 21 addressed to Capt. Philip Williams, U. S. Navy, Bureau of Navigation, I regret that the list which was inserted in the testimony of the 7th for your committee is not as complete as you desire it and is not headed and classified the way you want it, for I wish to assure the committee that I am only too anxious to furnish all the information possible in the way in which it will be of most use to the members.

Referring to this list of vessels, however, I wish to state that there was no list of vessels to be in commission after June 30, 1922, tabulated in accordance with classification of a report of the Paymaster General of the Navy for the fiscal year 1921, statement No. 4, furnished the committee by the Chief of Naval Operations on the opening hearings, and that the only attempt made in the short time at hand after receiving your request regarding same was to check with pencil on statement No. 4 the list of vessels that it was desired to retain in commission after June 30, 1922, including receiving ships, district craft, etc., which was done in five copies of the annual report of the Paymaster General and given to your committee on the 7th. The typewritten list which was presented to your committee on the 7th by the Chief of Naval Operations was a copy of the one that you have returned, except that it had no mention of men on board the ships listed there, or the allowance for 1922-23.

As soon as your letter of the 21st to Captain Williams was received in the department, steps were taken immediately to tabulate the information requested therein, but I regret to say that so much work is involved that it was found to be physically impossible to have this new table ready for you Tuesday afternoon as you requested.

Referring to the notation at the top of the list stating that it is based on 90,000 enlisted men plus 6,000 apprentices, I understand perfectly that the committee made no mention of any enlisted strength in regard to any list, but before a list can be made a definite number of men must be taken as a basis, and for the basis in compiling list furnished the committee an enlisted strength of 90,000 men plus 6,000 apprentices was taken.

In view of the fact that so much of the hearings on the succeeding days refer to this classified in accordance with the standard nomenclature which is gotten from the "Blue Book, 1921," it is requested that this list be published together with that according to statement 4 of the Paymaster General's annual report for 1921. Regarding both the *Connecticut* and *Seattle* was due to placing the allowance for the 1922 rather than the number of men that she had on board July 1, 1916. A mistake has been rectified, and I trust that you will find no others, although under the pressure that has been required of those compiling these lists, it is embarrassing to feel that more errors have not occurred.

Trusting that you will not hesitate to call upon me for any further information which may be of value to the committee, I beg to remain,

Very sincerely, yours,

THOS. WASHINGTON, Acting.

Hon. PATRICK H. KELLEY,
House of Representatives, Washington, D. C.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4.

Vessels.	1916		1922		P l c
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Battleships:					
First line—					
Delaware.....	830	803	1,198	935	
North Dakota.....	830	277	1,196	995	
Florida.....	837	904	1,196	868	
Utah.....	828	862	1,196	879	
Wyoming.....	915	1,002	1,289	1,048	
Arkansas.....	916	956	1,289	1,074	
New York.....	902	933	1,308	1,037	
Texas.....	902	932	1,308	1,039	
Nevada.....	920	932	1,186	959	
Oklahoma.....	920	894	1,186	929	
Pennsylvania.....	951	788	1,238	1,029	
Arizona.....	951		1,232	988	
New Mexico.....	951		1,272	1,062	
Mississippi.....	951		1,232	997	
Idaho.....	951		1,232	974	
Tennessee.....			1,266	998	
California.....	951		1,266	1,294	
Maryland.....			1,266	1,154	
Total.....	(1)	(1)		18,259	
Second line—					
Illinois (training reserves).....	605	290	60	47	
Connecticut ¹	844	275	550	542	
Total.....				589	
Cruisers:					
Armored—					
Huron.....	788	439	791	684	
Pueblo ²	778	426	320	320	
Seattle ³	778	840	791		
Total.....				1,004	
First class—					
Charleston.....	649	279	142	193	
Rochester.....	453	141	544	366	
Total.....				559	
Second class—Omaha, plus two others.....					
Third class—					
Birmingham.....	356	381	300	276	
Cleveland.....	274	278	288	296	
Denver.....	274	269	288	303	
Galveston.....	274	255	288	302	
Tacoma.....	274	65	288	277	
Total.....				1,454	
Monitor: Cheyenne (training reserves).....	210	153	34	36	
Destroyers:⁴					
103 vessels.....			11,742	9,608	{
23 vessels.....			1,311		
Total.....					
Light mine layers—					
Mahan.....			99	100	
Murray.....			99	95	
Maury.....			99	85	
Israel.....			99	99	
Ingraham.....			99	104	
Ludlow.....			99	95	
Burns.....			99	103	

¹ Connecticut to be scrapped if treaty is ratified.

² Pueblo is now receiving ship at New York and will be assigned as flagship, European Squadron, relief of Utah. Pueblo in 1922 has 470 extra men as receiving ship.

³ Seattle will be commissioned as flagship, train Pacific, if Connecticut is placed out of commission.

⁴ Impossible to give the men on board separately as it is not known at this moment which training vessels will be in full commission and which acting with 50 per cent complements.

ist of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Destroyers—Continued.					
Light mine layers—Continued.					
Anthony.....			99	105	99
Rial.....			99	115	99
Hart.....			99	92	99
Total.....				991	990
Submarines:					
S-1.....			34	35	
S-2.....			34	37	
S-3.....			34	34	
S-4.....			34	40	
S-5.....			34	40	
S-6.....			34	39	
S-7.....			34	38	
S-8.....			34	38	
S-9.....			34		
S-10.....			34		
S-11.....			34		
S-12.....			34		
S-13.....			34		
S-14.....			34	36	
S-15.....			34	36	
S-16.....			34	36	
S-17.....			34	37	
S-18.....			34		
S-19.....			34	34	
S-20.....			34		
S-21.....			34	38	
S-22.....			34		
S-23.....			34		
S-24.....			34		
S-25.....			34		
S-26.....			34		
S-27.....			34		
S-28.....			34		
S-29.....			34		
S-30.....			34	6	
S-31.....			34		
S-32.....			34		
S-33.....			34		
S-34.....			34		
S-35.....			34		
S-36.....			34		
S-37.....			34		
S-38.....			34		
S-39.....			34		
T-1.....			42	37	
T-2.....			42		
T-3.....			42	37	
T-4.....			27	27	
T-5.....			27	28	
T-6.....			27	29	
T-7.....			27	26	
T-8.....			27	28	
T-9.....			27	24	
T-10.....			27	22	
T-11.....			27	24	
T-12.....			27	25	
T-13.....			27	59	
T-14.....			27	24	
T-15.....			27	26	
T-16.....			27	26	
T-17.....			27	25	
T-18.....			27	22	
T-19.....			27	24	
T-20.....			27	29	
T-21.....			27	19	
T-22.....			27	15	
T-23.....			27	21	
T-24.....			27	10	
T-25.....			27	29	
T-26.....			27		
T-27.....			27		

List of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allowance for 1922.
27 submarines, ¹ second line, (two-thirds complement):		
8 H's (3 in commission 1916).....	66	430
8 K's.....	192	
8 L's.....	176	
3 N's.....		
35 patrol vessels, Eagles:		
Eagle 6 (at Pearl Harbor, engaged in antisubmarine tactics).....		10
Eagle 7 (at Pearl Harbor, engaged in antisubmarine tactics).....		10
Eagle 8 (at Pearl Harbor, engaged in antisubmarine tactics).....		10
Eagle 9 (fifth naval district, training reservists).....		10
Eagle 11 (duty with submarines, San Pedro).....		(2)
Eagle 12 (training reservists, eleventh naval district).....		10
Eagle 13 (training reservists, third naval district).....		10
Eagle 14 (duty with submarines at Pearl Harbor).....		(2)
Eagle 15 (training reservists, third naval district).....		10
Eagle 17 (duty with submarines, Hampton Roads).....		(2)
Eagle 19 (training reservists, first naval district).....		10
Eagle 21 (on duty, Quantico, freight and passengers to Washington).....		26
Eagle 23 (training reservists, third naval district).....		10
Eagle 27 (training reservists, third naval district).....		10
Eagle 29 (training reservists, first naval district).....		10
Eagle 31 (duty with submarines at Coco Solo).....		(2)
Eagle 33 (duty with submarines, New London).....		(2)
Eagle 34 (training reservists, eleventh naval district).....		10
Eagle 35 (training reservists, twelfth naval district).....		10
Eagle 36 (training reservists, eighth naval district).....		10
Eagle 38 (training reservists, thirteenth naval district).....		10
Eagle 39 (training reservists, seventh naval district).....		10
Eagle 40 (duty air station, Pearl Harbor).....		(2)
Eagle 42 (training reservists, first naval district).....		10
Eagle 44 (training reservists, third naval district).....		10
Eagle 47 (training reservists, twelfth naval district).....		10
Eagle 48 (training reservists, third naval district).....		10
Eagle 51 (training reservists, third naval district).....		10
Eagle 52 (training reservists, fourth naval district).....		10
Eagle 54 (training reservists, third naval district).....		10
Eagle 55 (training reservists, third naval district).....		10
Eagle 56 (training reservists, Washington, D. C.).....		10
Eagle 57 (training reservists, thirteenth naval district).....		10
Eagle 58 (training reservists, Pearl Harbor).....		10
Eagle 59 (training reservists, third naval district).....		10
Total.....		386
SUMMARY OF EAGLES.		
In commission (35):		
Training reservists.....	25	
Submarine duties.....	8	
Air station duty.....	1	
Ferry, Washington to Quantico.....	1	
Total.....	35	
Out of commission and in ordinary.....	19	
Total.....	54	
43 patrol vessels, submarine chasers:		
Submarine chaser 57, Naval Academy, intermittently training midshipmen.....		6
Submarine chaser 64, St. Louis, training reservists.....		3
Submarine chaser 64, St. Louis, training reservists.....		3
Submarine chaser 69, St. Petersburg, training reservists.....		3
Submarine chaser 102, Naval Academy, intermittently training midshipmen.....		6
Submarine chaser 103, New Haven, Conn., training reservists.....		3
Submarine chaser 104, Tampa, Fla., training reservists.....		3
Submarine chaser 143, New York, training reservists.....		3
Submarine chaser 154, seventh naval district.....		4
Submarine chaser 179, eighth naval district, station duties, New Orleans.....		
Submarine chaser 185, Dahlen, Va., performing ground duties.....		12
Submarine chaser 191, eighth naval district, training reservists.....		3
Submarine chaser 192, Indianhead, Md., performing ground duties.....		11
Submarine chaser 210, navy yard, Washington, training reservists.....		3
Submarine chaser 214, Hatteras, N. C., performing ground duties.....		17
Submarine chaser 223, Haiti activities, marine brigade, Haiti.....		17

¹ Total complement, 430.

² With submarine base.

³ Manned with Air Service personnel.

List of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allow- ance for 1922.
43 patrol vessels, submarine chasers—continued.		
Submarine chaser 224, New York, training reservists.		3
Submarine chaser 229, Naval Academy, intermittently training midshipmen.		4
Submarine chaser 231, Naval Academy, intermittently training midshipmen.		4
Submarine chaser 237, Naval Academy, intermittently training midshipmen.		4
Submarine chaser 251, Indianhead, Md., out of commission.		
Submarine chaser 253, Haiti activities, marine brigade, Haiti.		17
Submarine chaser 271, Stamford, Conn., training reservists.		3
Submarine chaser 277, eleventh naval district, duty with reserve destroyer force.		7
Submarine chaser 278, eleventh naval district, duty with reserve destroyer force.		7
Submarine chaser 284, fifteenth naval district, submarine operations.		7
Submarine chaser 285, fifteenth naval district, seaplane tender.		7
Submarine chaser 287, fifteenth naval district, undergoing overhaul.		7
Submarine chaser 303, twelfth naval district, calibration compasses.		7
Submarine chaser 306, eleventh naval district.		7
Submarine chaser 326, Naval Academy, intermittently training midshipmen.		4
Submarine chaser 328, Naval Academy, intermittently training midshipmen.		4
Submarine chaser 330, ninth naval district, training reservists.		3
Submarine chaser 340, Guantanamo, St. Thomas.		9
Submarine chaser 408, first naval district, general district duties.		7
Submarine chaser 412, ninth naval district, training reservists.		3
Submarine chaser 419, ninth naval district, training reservists.		3
Submarine chaser 431, ninth naval district, ordnance, third naval district, for training reservists.		3
Submarine chaser, 432 ninth naval district, at Cleveland, training reservists.		3
Submarine chaser 433, ninth naval district, ordnance, third naval district, training reservists.		3
Submarine chaser 437, ninth naval district, ordnance, third naval district, training reservists.		3
Submarine chaser 440, Naval Academy, intermittently training midshipmen.		4
Submarine chaser 443, San Domingo, duties connection military government Dominican Republic.		17
Submarine chaser 444, San Domingo, duties connection military government Dominican Republic.		17
Submarine chaser 96 and 338, at Constantinople, being used until can be sold.		
Total.		261
SUMMARY, SUBCHASERS.		
Training midshipmen.	8	
Training reservists.	16	
District and naval station duties.	17	
Submarine and seaplane duties.	2	
Total.	43	
Out of commission and on sale.	38	
Total.	81	
9 patrol vessels, gunboats:		
Wilmington, Asiatic Fleet, Yangtze patrol at Amoy.	169	162
Palos, Asiatic Fleet, Yangtze patrol.	45	46
Sacramento, Asiatic Fleet, assigned (orders to proceed temporarily withheld).	135	152
Monocacy, Asiatic Fleet, Yangtze patrol.	45	46
Asheville, Asiatic Fleet, assigned (orders to proceed temporarily withheld).		148
Elcano, Asiatic Fleet, Yangtze patrol.	93	93
Pampanga, Asiatic Fleet, South China patrol.	29	30
Quyros, Asiatic Fleet, Yangtze patrol.	54	55
Villalobos, Asiatic Fleet, Yangtze patrol.	54	55
Total.		787
6 patrol vessels, yachts:		
Mayflower, navy yard, Washington (President's yacht).	172	160
Vixen, naval station, St. Thomas (station ship).	74	72
Sylph, navy yard, Washington (Navy Department tender).	28	32
Nokomis, San Domingo City (station ship and transport for military government).		66
Isabel, Asiatic Fleet, Yangtze patrol.		83
Scorpion, Constantinople station ship.		132
Total.		545
6 auxiliaries, destroyer tenders:		
Melville.	315	449
Black Hawk.		440

* Manned by men from Scorpion or destroyers.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Battleships:					
First line—					
Delaware.....	830	903	1,198	935	1,116
North Dakota.....	830	277	1,196	995	1,114
Florida.....	837	904	1,196	998	1,116
Utah.....	828	862	1,196	879	1,116
Wyoming.....	915	1,002	1,196	1,048	1,225
Arkansas.....	916	956	1,196	1,074	1,225
New York.....	902	933	1,196	1,037	1,243
Texas.....	902	932	1,196	1,039	1,243
Nevada.....	920	932	1,196	950	1,127
Oklahoma.....	920	894	1,196	929	1,127
Pennsylvania.....	951	788	1,196	1,029	1,175
Arizona.....	951		1,232	988	1,175
New Mexico.....	951		1,272	1,062	1,268
Mississippi.....	951		1,232	997	1,175
Idaho.....	951		1,232	974	1,175
Tennessee.....			1,266	998	1,268
California.....	951		1,266	1,204	1,268
Maryland.....			1,266	1,154	1,264
Total.....	(1)	(1)		18,259	21,134
Second line—					
Illinois (training reserves).....	605	290	60	47	60
Connecticut.....	844	275	550	542	550
Total.....				589	610
Cruisers:					
Armored—					
Huron.....	788	439	791	684	791
Pueblo.....	778	426	791	320	791
Seattle.....	778	840	791		
Total.....				1,004	1,582
First class					
Charleston.....	649	279	142	193	
Rochester.....	453	141	544	366	
Total.....				559	
Second class—Omaha, plus two others.....					
Third class					
Birmingham.....	356	381	300	276	
Cleveland.....	274	278	288	286	
Denver.....	274	269	288	303	
Galveston.....	274	255	288	302	
Tacoma.....	274	65	288	277	
Total.....				1,454	1
Monitor: Cheyenne (training reserves).....	210	153	34	36	
Destroyers:					
103 vessels.....			11,742		
23 vessels.....			1,311	9,008	
Total.....					11
Light minelayers:					
Mahan.....			99	100	
Murray.....			99	98	
Maury.....			99	85	
Israel.....			99	99	
Ingraham.....			99	104	
Ludlow.....			99	93	
Burns.....			99	103	

* Connecticut to be scrapped if treaty is ratified.

* Pueblo is now receiving ship at New York and will be assigned as flagship, European Squadron, as chief of Utah—Pueblo in 1922 has 450 extra men as receiving ship.

* Seattle will be commissioned as flagship, train Pacific, if Connecticut is placed out of commission.

* Impossible to give the men on board separately as it is not known at this moment which boats by name will be in full commission and which acting with 50 per cent complements.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Destroyers—Continued.					
Light mine layers—Continued.					
Anthony.....			99	105	99
Rizal.....			99	115	99
Hart.....			99	92	99
Total.....				991	990
Submarines:					
S-1.....			34	35	
S-2.....			34	37	
S-3.....			34	34	
S-4.....			34	40	
S-5.....			34	40	
S-6.....			34	39	
S-7.....			34	38	
S-8.....			34	38	
S-9.....			34	38	
S-10.....			34		
S-11.....			34		
S-12.....			34		
S-13.....			34		
S-14.....			34	36	
S-15.....			34	36	
S-16.....			34	36	
S-17.....			34	37	
S-18.....			34		
S-19.....			34	34	
S-20.....			34		
S-21.....			34	38	
S-22.....			34		
S-23.....			34		
S-24.....			34		
S-25.....			34		
S-26.....			34		
S-27.....			34		
S-28.....			34		
S-29.....			34		
S-30.....			34	6	
S-31.....			34		
S-32.....			34		
S-33.....			34		
S-34.....			34		
S-35.....			34		
S-36.....			34		
S-37.....			34		
S-38.....			34		
S-39.....			34		
T-1.....			42	37	
T-2.....			42		
T-3.....			42	37	
R-6.....			27	27	
R-7.....			27	28	
R-8.....			27	29	
R-9.....			27	26	
R-10.....			27	28	
R-11.....			27	24	
R-12.....			27	22	
R-13.....			27	24	
R-14.....			27	25	
R-15.....			27	59	
R-16.....			27	24	
R-17.....			27	26	
R-18.....			27	26	
R-19.....			27	25	
R-20.....			27	22	
R-21.....			27	24	
R-22.....			27	29	
R-23.....			27	19	
R-24.....			27	15	
R-25.....			27	21	
R-26.....			27	10	
R-27.....			27	29	

1,292

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List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1918		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Submarines—Continued.					
First line, full commission—					
O-1.....			27	26	62
O-2.....			27	26	
O-3.....			27	26	
O-4.....			27	26	
O-5.....			27	26	
O-6.....			27	27	
O-7.....			27	27	
O-8.....			27	27	
O-9.....			27	27	
O-10.....			27	27	
O-11.....			27	26	
O-12.....			27	23	
O-13.....			27	22	
O-14.....			27	25	
O-15.....			27	26	
O-16.....			27	27	
R-1.....			27	29	
R-2.....			27	28	
R-3.....			27	29	
R-4.....			27	29	
R-5.....			27	25	
Second line in commission, two-thirds comple- ment—					
H-2.....	22	20	15	27	15
H-3.....	22	19	15	26	15
H-4.....			15	29	15
H-5.....			15	27	15
H-6.....			15	29	15
H-7.....			15	26	15
H-8.....			15	26	15
H-9.....			15	26	15
Total.....	66			236	120
K-1.....	24	24	15	21	15
K-2.....	24	23	15	21	15
K-3.....	24	24	15	21	15
K-4.....	24	25	15	21	15
K-5.....	24	22	15	25	15
K-6.....	24	22	15	23	15
K-7.....	24	24	15	23	15
K-8.....	24	24	15	22	15
Total.....	192			177	120
L-2.....	22		17	9	17
L-3.....	22	20	17	3	17
L-5.....	22		17	25	17
L-6.....	22		17	29	17
L-7.....	22		17	25	17
L-8.....	22		17	24	17
L-9.....	22		17	15	17
L-10.....	22		17	2	17
Total.....	176				
N-1.....			18	15	15
N-2.....			18	20	15
N-3.....			18	15	15
Total.....				182	150
Grand total.....				3,048	3,600
Submarine chasers.*					
No. 57, training midshipmen.....			** 4	11	4
No. 63, training reserves.....			3	3	3
No. 64, training reserves.....			3	6	3

* H-1 in commission 1916; on board, 19; complement, 22.

* Nos. 45 and 96 at Constantinople to be sold. Manned by men from Scorpion or destroyers.

* The 3 subchasers listed as training midshipmen are in a noncommission status and are used intermittently for drill purposes.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Submarine chasers—Continued.					
No. 69 (training reserves).....			3	2	3
No. 102 (training midshipmen).....			** 4	4	4
No. 103 (training reserves).....			3	2	3
No. 104 (training reserves).....			3	3	3
No. 143 (training reserves).....			3	2	3
No. 154.....			** 8	7	8
No. 159 (personnel supplied from air station).....					
No. 185.....			** 12	11	12
No. 191 (training reserves).....			3	2	3
No. 192.....			** 11	10	11
No. 210 (training reserves).....			3	5	3
No. 214.....			** 17	9	17
No. 223.....			** 17	8	17
No. 229 (training midshipmen).....			4	4	4
No. 231 (training midshipmen).....			4	4	4
No. 237 (training midshipmen).....			4	4	4
No. 253.....			17	16	17
No. 271 (training reserves).....			3	3	3
No. 277.....			** 7	10	7
No. 278.....			** 7	7	7
No. 284.....			** 7	4	7
No. 285.....			** 7	3	7
No. 287.....			** 7		7
No. 303.....			** 7	7	7
No. 306.....			** 7	13	7
No. 326 (training midshipmen).....			** 4	4	4
No. 328 (training midshipmen).....			** 4	4	4
No. 330 (training reserves).....			3	3	3
No. 340.....			** 9	10	9
No. 408.....			** 7	9	7
No. 412 (training reserves).....			3	3	3
No. 419 (training reserves).....			3	3	3
No. 431 (training reserves).....			3	3	3
No. 432 (training reserves).....			3	3	3
No. 433 (training reserves).....			3	3	3
No. 437 (training reserves).....			3	3	3
No. 440.....			** 4	19	4
No. 443.....			** 17	18	17
No. 444.....			** 17	19	17
Total.....				264	261
Eagles:					
6 (training reserves).....			10	45	10
7 (training reserves).....			10	38	10
8 (training reserves).....			10	42	10
9 (training reserves).....			10	12	10
11 (with submarine base).....			(**)		(*)
12 (training reserves).....			10	10	10
13 (training reserves).....			10	10	10
14 (with submarine base).....			(**)		(*)
15 (training reserves).....			10	10	10
17 (with submarine base).....			(**)		(*)
19 (training reserves).....			10	10	10
23.....			36	28	36
26 (training reserves).....			10	10	10
27 (training reserves).....			10	9	10
29 (training reserves).....			10	10	10
31 (with submarine base).....			(**)		(*)
33 (with submarine base).....			(**)		(*)
34 (training reserves).....			10	13	10
35 (training reserves).....			10	13	10
36 (training reserves).....			10	6	10
38 (training reserves).....			10	10	10
39 (training reserves).....			10	10	10
40 (personnel supplied from air station).....			(**)		
42 (training reserves).....			10	10	10
44 (training reserves).....			10	10	10
47 (training reserves).....			10	14	10
48 (training reserves).....			10	10	10
51 (training reserves).....			10	10	10
52 (training reserves).....			10	4	10

* Submarine base.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Converted yachts and patrol vessels:					
Advance (tug).....			** 8		
Hawk.....	38		6	7	4
Herreshoff No. 321.....			** 12	12	12
Isabel.....			93	94	93
Mayflower.....	172	159	160	159	160
Nokomis.....			66	85	66
Porpoise (tug).....			** 21		
Scorpion.....	80		132	138	132
Shady Side (ferry).....					
Delaware S. P. 47.....			(**)	10	19
Sylph.....	28	79	32	32	32
Vixen.....	74		72	76	72
Total.....				592	551
Motor patrol boats:					
Asp.....			(**)	4	4
Clarinda (sixth naval district).....			(**)	8	8
Constance II (first naval district).....			(**)	7	7
Privateer.....			(**)	8	8
Zumbrota.....			(**)	5	5
Tugs:					
Contocook (fleet).....			39	40	39
Montcalm (fleet).....			39	37	39
Napa (fleet).....			39	40	39
Ontario (fleet).....	49	51	54	64	54
Oswego (fleet).....	27	31	34	36	34
Potomac (fleet).....	36	38	42	42	42
Somona (fleet).....	49	51	54	54	54
Tadousac (fleet).....			39	39	39
Algoma (fleet).....			** 30		
Allegheny (fleet).....			** 24		
Catawba (district).....			** 13		
Cayuga (district).....			** 8		
Chemung (fleet).....			** 20		
Mendota (ex-Concord) (district).....			** 20		
Grampus.....			** 19		
Heracles (district).....	8		** 8		
Iuka (fleet).....			** 39		
Iwawa (district).....	8		** 8		
Iroquois (fleet).....	34		** 20		
Kalama (fleet).....			** 30		
Keosauqua (fleet).....			** 39		
Kewadin (fleet).....			** 30		
Koka (fleet).....			** 30		
Lively (district).....			** 8		
Mahopac (fleet).....			** 30		
Massasoit (district).....	8		** 8		
Modoc (district).....			** 8		
Mohave (fleet).....			** 20		
Mohawk (district).....	8		** 8		
Narkeeta (district).....	8		** 8		
Nausett (district).....			** 8		
Navajo (fleet).....			** 26		
Navigator (district).....			** 12		
Nottaway (district).....			** 9		
Patapsco (fleet).....	45		** 30		
Patuxent (fleet).....	46		** 30		
Pawtucket (district).....	8		** 8		
Penacook (district).....	8		** 9		
Pentucket (district).....	8		** 8		
Pinola (fleet).....			** 39		
Piscataqua (fleet).....	45		** 14		
Rocket (district).....	8		** 8		
Saco (district).....			** 9		
Sagamore (fleet).....			** 20		
Seneca (fleet).....			** 20		
Selago (district).....			** 9		
Sunmadin (fleet).....	49	51	** 39		
Tarnuck (fleet).....			** 39		
Tillamook (fleet).....			** 12		
Triton (district).....			** 12		
Harbor tug No. 49.....			** 8		
Harbor tug No. 50.....			** 8		

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Tugs—Continued.					
Harbor tug No. 61.....			** 8		
Harbor tug No. 67.....			** 8		
Harbor tug No. 69 (lent to marines).....					
Harbor tug No. 71.....			** 8		
Harbor tug No. 72.....			** 8		
Harbor tug No. 73.....			** 8		
Harbor tug No. 81.....			** 8		
Motor tug No. 86.....			** 4		
Motor tug No. 90.....			** 7		
Motor tug No. 93.....			** 2		
Motor tug No. 92.....			** 8		
Motor tug No. 98.....			** 4		
Umpqua (fleet).....			** 30		
Unadilla (district).....			** 11		
Vigilant (district).....			** 8		
Wahnetta (district).....			** 8		
Wicomico (ex-Choctow) (district).....	8		** 8		
Wompatuck (district).....			** 18		
Additional tugs not carried in Paymaster Gen- eral's report—					
Bay Spring (fleet).....			** 24		
Challenge (fleet).....			** 14		
Lykens (fleet).....			** 30		
Undaunted (fleet).....			** 22		
Advance (district).....			** 8		
Sotoyoma (district).....			** 8		
Total.....				365	340
Special type:					
Aroostook (mine layer).....			250	240	250
Baltimore (mine layer).....	320	313	334	301	334
Black Hawk (destroyer tender).....			440	349	440
Shawmut (mine layer).....			369	314	369
Vestal (repair ship).....	230	285	430	357	430
Wright (aircraft tender).....			286	390	286
Total.....				1,951	2,109
Naval Overseas Transportation Service vessel:					
Argonne.....			222	211	222
Unserviceable for war purposes:					
Old Constellation.....			(**)	17	
Old Constitution.....			(**)	5	
Hartford (receiving ship).....		78	(**)	75	
Philadelphia (receiving ship).....		35	(**)	109	
Reina Mercedes (receiving ship).....		91	(**)	91	
Southery (receiving ship).....		55	(**)	47	
Total.....			(**)	342	
Bureau of Fisheries:					
Albatross.....	75		81		81
Fish Hawk.....	44		44	44	44
Total.....				44	125
Ex-foreign:					
Bath.....			88	112	88
Beaufort.....			72	71	72
Black Hawk.....			(10) 72	(10) 71	(10) 72
Bridgeport.....			520	651	520
Camden.....			344	378	347
Kittery.....			87	113	84
Newport News.....			113	138	113
Pensacola (will be station ship Guam).....			110	111	
Rappahannock.....			268	235	268
Savannah.....			338	308	338
Total.....				2,117	1,830

¹⁰ Shown under "Special type."

Mr. KELLEY. I think the admiral knows what I want. I want a fairly accurate comparison of the number of men that you are asking for the coming year with the number of men that you actually had on those various ships at some particular date, say, July 1, 1916, and I think that, perhaps, it would be well to have a third column giving the actual number of men on each ship as of some particular date this year.

Secretary DENBY. We could take the same date in each year.

Mr. KELLEY. Make it a fair comparison with the number of men carried in 1916.

Colonel ROOSEVELT. We could take the 1st of July, 1916, and the 1st of July, 1921.

ARMORED CRUISERS.

NUMBER TO BE KEPT IN COMMISSION.

Mr. KELLEY. The next is armored cruisers: Do you intend to keep the *Frederick* in commission next year?

Admiral COONTZ. I would like to state that this way: The *Hura* is now the flagship of the Asiatic station, and she will have to be relieved this calendar year, because she will need repairs and will have to come home. Therefore, one of the others would have to go to relieve her, but that would be an exchange. The *Pueblo*, the receiving ship at New York, has a small number of men on board. The *Seattle* has been chosen to relieve the *Connecticut* and will be placed in commission after the treaty is ratified. The *Utah* will have to be relieved in Europe, so that she may come home and join the battle fleet. That would mean three in commission, and one is a receiving ship. We have not fixed on which three will relieve the others but will pick the ones which will be most economical. The *Memphis* was wrecked several years ago.

Colonel ROOSEVELT. Could you not state it this way: There are 11 in question, and out of the 11 7 will be put out of commission, 1 used as a receiving ship in New York, and 3 will be in service?

Admiral COONTZ. Yes, sir. Two of those vessels have been sunk, however, already—the *Memphis* and *San Diego*.

Colonel ROOSEVELT. They are not in the list of 11 that I speak of.

Admiral COONTZ. They are in this list I have here.

Mr. KELLEY. There are only 10 in this list.

Admiral COONTZ. Yes, sir; two of them have been sunk.

Mr. KELLEY. Which two?

Admiral COONTZ. The *Memphis* and the *San Diego*. The *Memphis* went down at San Domingo City, and the *San Diego* was blown up by a mine during the war.

Mr. KELLEY. Out of the other eight, you intend to keep three in commission?

Admiral COONTZ. Yes, sir; three in commission and one as a receiving ship.

DUTIES OF FLAGSHIP OF TRAIN.

Mr. KELLEY. What are the duties of the *Connecticut* now?

Admiral COONTZ. The duties of the *Connecticut* are those of flagship of the Pacific train and of the base force in the Pacific.

Mr. KELLEY. Just explain that a little more, in an untechnical way. Admiral COONTZ. I have a statement of that here.

Mr. KELLEY. Let me ask you this, and perhaps we can make it shorter: If I have the right idea the flagship of a train is the ship that carries the office end of the outfit?

Admiral COONTZ. Yes, sir. I can give it in a few words. It is one of the necessary ships in connection with the train, and the service performed by it corresponds with the service performed by the Quartermaster Corps of the Army.

Mr. KELLEY. That is far enough. I think I understand it.

Colonel ROOSEVELT. The flagship is the office of the train, and the others are supply ships.

Mr. KELLEY. Is there not some ship in the train that would be large enough to accommodate the officers, or to handle the executive work, without having the *Connecticut* along?

Admiral COONTZ. I do not believe it would pay to do so, because the others would be moving. They are cargo ships, or vessels of that character, that have specific duties.

Mr. KELLEY. I suppose it might happen that the headquarters might find itself separated from the rest of the train, if you did not have a ship especially for headquarters?

Secretary DENBY. When I was with the fleet at Guantanamo Bay last spring I observed that situation, and I know that you could not use those ships for carrying that personnel. Those ships were carrying supplies, and some of them were repair ships, or floating machine shops. They are given up entirely to the purposes for which they are intended, and no staff of any kind could be carried on them unless the ships were especially designed for that purpose.

COST OF OPERATING STEAMSHIP "FREDERICK" FOR 1921.

Mr. KELLEY. The *Frederick* cost last year \$1,213,957.60.

Admiral COONTZ. Yes, sir. I would like to insert a statement into the record showing why the *Frederick* did cost that much money.

NOTE.—The U. S. S. *Frederick* was employed from July 1, 1920, to June 30, 1921, as follows:

July 1 to 17, 1920, at the navy yard, Philadelphia; July 17 to October 13, 1920, carrying of American athletes to Olympic games in Europe; October 13 to December 1, 1920, at Philadelphia; December 1 to 13, 1920, en route Canal Zone; January 16, 1921, relieved *Glacier* at flagship of train, Pacific, at Canal Zone; January 21 to February 23, 1921, cruise to Valparaiso and return; February 23 to March 14, 1921, en route Balboa to Bremerton; March 14 to April 25, 1921, at Bremerton; April 25 to June 30, 1921, visit of Pacific coast ports.

It should be noted that from July 17 to October 13, 1920, the *Frederick* was employed carrying the American naval athletes to Europe to participate in the Olympic games at Brussels. On this cruise she was manned to a large extent by naval reservists under training, who volunteered for this training cruise. She carried personnel in excess of complement on this cruise which would account for heavy expenditure under "Pay of the Navy."

It should also be noted that the employment of the *Frederick* during the fiscal year 1921 involved long trips at sea, which accounts for heavy expenditures under "Fuel and transportation." The heavy expenditures under "Construction and repair" and "Engineering" can be accounted for by the necessary repairs to fit the vessel for ordinary naval service after being used for transporting troops returning from Europe after the armistice and repairs necessary after strenuous war and transport service, when repairs could not be made, because it was necessary to keep the vessels running with only sufficient repairs to keep them going.

GUN POWER AND MILITARY VALUE OF ARMORED CRUISERS.

Mr. KELLEY. You propose to have 3 out of 10 of these vessels in commission?

Admiral COONTZ. There will be four including the receiving ship.

Mr. KELLEY. Counting the receiving ship at New York, there would be four.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The armored cruisers came along in the last few years, did they not?

Admiral COONTZ. They were commissioned between 1905 and 1908. They are pretty good ships, so far as gun power is concerned.

Mr. KELLEY. They are still good ships?

Admiral COONTZ. Yes, sir.

Secretary DENBY. The last one was built in 1908, or was put in commission in 1908.

Mr. KELLEY. So that these ships have some military value.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is their gun power?

Admiral COONTZ. They carry four 8-inch guns and fourteen 3-inch guns.

Mr. KELLEY. So you have here in service a flagship for the fleet, which is more or less a supply part of the fleet, but it would have a military strength also?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There are three to be put in commission?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many of these ships has Japan?

Colonel ROOSEVELT. Japan has five of that type.

Mr. KELLEY. The armored battle cruiser will be an offset to our battleships, or that was the understanding.

Admiral COONTZ. Yes, sir.

SHIPS STATIONED IN EUROPEAN WATERS.

Mr. KELLEY. What was the duty of the other one? Was it to relieve the *Utah*?

Admiral COONTZ. Yes, sir; to relieve the *Utah*.

Mr. KELLEY. One of these others was to relieve the *Utah*, and you want you to tell me why it will have to be relieved?

Admiral COONTZ. The *Utah* is a battleship which we had expected to put in the second line before long, having planned to run her up with the new ones as they came on; but now, being restricted in that, the *Utah* is one of the eighteen which will be retained and we want to keep her with the battleship force for operations and maneuvers.

Mr. KELLEY. Where is she now?

Admiral COONTZ. At Algiers.

Mr. KELLEY. Have you got to send another ship there?

Admiral COONTZ. If we relieve the *Utah* we wish to send another ship in her place.

Mr. KELLEY. What is the necessity for leaving a ship at Algiers?

Admiral COONTZ. The State Department has asked us to have one for the present. This ship is the flagship of the European station.

Secretary DENBY. The *Utah* is the only ship of any size in European waters. The only other vessels over there are the destroyers.

Admiral COONTZ. Just at the present time she happens to be at

Mr. KELLEY. Would not a smaller ship answer the purpose?

Admiral COONTZ. A smaller ship would not answer the purpose very well, for this reason, that a small ship that we have would not fit up so well with the British, French, and other squadrons now in European waters. This vessel represents the United States, and we have only one. On the other hand, the British have a whole fleet on there. We think that an armored cruiser would best show our Nation and prestige, not alone along military lines, but for commerce. It is important that we have a fair-sized ship for the service.

Mr. KELLEY. I rather agree with you that where the purpose of a ship is to reflect the dignity of the country, that it ought to be a pretty ship.

Admiral COONTZ. The commander in chief in European waters has asked for one large vessel to stay at Constantinople all the time, but we have refused it, and have steadily reduced that station. I will take that up later.

Mr. KELLEY. Of course, there is no military need of a ship at the present time.

Admiral COONTZ. No; she merely happens to be there to-day; she has been at various points; she has been in the North Sea, Baltic, and all European waters.

Secretary DENBY. May I tell you why she is at Algiers? She is there at the request of the State Department. The French President is having a review off Algiers, and the *Utah* being the only ship of any size we have on the European station, she was sent to participate in the review. She is also the flagship.

Mr. KELLEY. It is an evidence of friendship and good will between our countries?

Secretary DENBY. Yes.

Mr. KELLEY. Which is one function of the Navy.

Secretary DENBY. But she is not to be replaced by a battleship.

Admiral COONTZ. No; she is to be replaced by an armored

Secretary DENBY. But still a ship larger than a destroyer should be at the European station.

Mr. KELLEY. You do not think, Admiral, that the retention of one ship, to continue in this service, would be a good thing?

Admiral COONTZ. No, sir.

Mr. KELLEY. You would have the ship in commission and all ready for work of any kind that it was necessary for her to do; and that is the case what would be the difference whether it was over there or over here?

Admiral COONTZ. There are two reasons. In case war came suddenly we would be shy one battleship, if we got into war in that direction; second, it is necessary nowadays to have the training with

the fleet, so that each battle unit can be fully ready to take its place in the battle line. As you know, battles are now very short lived.

Colonel ROOSEVELT. May I interpolate—

Mr. KELLEY (interposing). I think it would be a little better if we should go ahead with one witness and not have interpolations, because it mixes us up, but you may make whatever statement you desire.

Colonel ROOSEVELT. You said she would be there ready for anything, but the trouble is that she would not be ready for anything, because, in order to have ships ready for anything, they should be concentrated with their fighting units. We only have 18 left, under the treaty, and if we are going to have our 18 where they are ready for anything, they have got to be together.

Mr. KELLEY. You have not got them together, anyhow; you have half of them in the Pacific.

Colonel ROOSEVELT. But they are together in units.

Mr. KELLEY. That is, some of them are together.

Colonel ROOSEVELT. The complete units are together.

CRUISERS, FIRST CLASS.

Mr. KELLEY. I can see some force in the suggestion. No cruisers of the first class. Which ones are we going to have next year?

Admiral COONTZ. We are going to have of those on that list *Charleston* and the *Rochester*, the *Charleston* being the flagship of destroyer force in the Pacific, and the *Rochester* having the position in the Atlantic.

Mr. KELLEY. How many destroyers are attached to the *Charleston* if I may speak that way, Admiral?

Admiral COONTZ. Is the number 100?

Captain KALBFUS. About 108 now, sir.

Mr. KELLEY. How many are attached to the *Rochester*?

Captain KALBFUS. The 108 includes 18 in China, which should be taken out.

Admiral COONTZ. We will take them out; that would be 90. I am on this side with the *Rochester*?

Captain KALBFUS. One hundred and twenty-two with *Rochester* and *Charleston*, plus the active squadron of 19 with the Atlantic in all 141.

Mr. KELLEY. They are large ships, and in 1921 the *Charleston* \$1,112,110 and the *Rochester* \$1,154,872. Would not a smaller ship answer your purposes?

Admiral COONTZ. A smaller vessel would answer those purposes if it had the proper characteristics, but until we get light cruisers of 33 or 34 knots we must do the best we can.

Mr. KELLEY. Do you regard these as good military ships?

Admiral COONTZ. Yes, sir; they are still fighting ships.

Mr. KELLEY. What is their gun power?

Admiral COONTZ. The *Charleston* has twelve 6-inch 50-caliber guns, besides various secondary guns, antiaircraft guns, and saluting guns; the *Rochester* has four 8-inch 45-caliber guns, eight 5-inch 50-caliber guns, and various antiaircraft guns and saluting batteries.

Mr. KELLEY. Was the *Rochester* rebuilt?

Admiral COONTZ. The *Rochester* is the old *New York*. During recent years her gunnery installation was completely overhauled and brought up to date.

Mr. KELLEY. So while she was first put into commission in 1893, she has been fixed up since then?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And she has been made quite a modern ship?

Admiral COONTZ. I would not call her an extra modern ship, but she will do until we can do better.

Mr. KELLEY. And those other three you will put out of commission entirely, or have they already gone?

Admiral COONTZ. The old *Milwaukee* was sunk some years ago; the *St. Louis* is out of commission and possibly will be sold; the *Brooklyn* has already been sold.

CRUISERS, SECOND CLASS.

Mr. KELLEY. Now the cruisers of the second class.

Admiral COONTZ. Of the cruisers of the second class the *Columbia* and *Minneapolis* have been sold; the *Chicago* is the station ship at Honolulu; she is no longer of military value and is now immobile—I believe her propellers have been removed; the *Olympia* is the flagship of the Atlantic train; she is to be placed out of commission when the fleet comes north in May, and we expect the State of Washington to take some action regarding her preservation as a relic. Of course, as you know, she was the flagship of Admiral Dewey at the Battle of Manila Bay; the *Omaha* and *Milwaukee* are in process of building and will be completed within a few months, when they will go into commission. Those two and the *Richmond* will be the first of the new scout cruisers to be completed.

Mr. KELLEY. Those two are entirely new?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And they are the only ones you intend to have in that group?

Admiral COONTZ. No, sir; also the *Richmond*.

Mr. KELLEY. Have you another new one?

Admiral COONTZ. Yes, sir; the *Richmond* is about complete.

Mr. KELLEY. Then there are three new cruisers?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And all the others go out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Now, cruisers of the third class.

Secretary DENBY. May I make a correction?

Mr. KELLEY. Yes.

Secretary DENBY. Not all of those cruisers go out because, as has been stated, the *Chicago* is being used as a station ship but with her propellers off, and I presume she will be carried on the navy list.

Admiral COONTZ. But Admiral Washington would call her on the other list. Of the cruisers of the third class—

Mr. KELLEY (interposing). The *Columbia* is sold, you said?

Admiral COONTZ. Yes, sir; and the *Minneapolis* is sold.

Mr. KELLEY. The *Olympia* will be turned over to the State of Washington under proper arrangements?

Admiral COONTZ. We hope to do that.

Mr. KELLEY. And the other three are new?

Admiral COONTZ. Yes, sir.

CRUISERS, THIRD CLASS.

(See p. 241.)

Mr. KELLEY. Now, cruisers of the third class.

Admiral COONTZ. Of the third class the *Albany* is on duty in Chir she is very old and we expect to relieve her with the *Sacramento* some time within the next six months.

Mr. KELLEY. Where do you find the *Sacramento* on the list?

Admiral COONTZ. We have not gotten to the *Sacramento* yet; it further down the list. The next is the *Anniston*; she was at November 14, 1919.

Mr. KELLEY. Is the *Sacramento* one of your new ones?

Admiral COONTZ. Yes, sir; comparatively new; she was completed in 1914.

Mr. KELLEY. You intend to keep the *Albany* in commission until you get a new one to take her place?

Admiral COONTZ. Yes, sir; until the *Sacramento* can get out there.

Mr. KELLEY. So the *Albany* would probably require as many as the new one, and you would simply be exchanging crews?

Admiral COONTZ. No; the new one will require fewer men, but will be necessary to have a crew take her out and make the ship. The *Sacramento* is a gunboat about 6 years old, and we got the *Alb* in the Spanish War.

Mr. KELLEY. Then the *Albany* can go out when a gunboat takes her place?

Admiral COONTZ. Yes, sir; but it will take at least six months before that change is made.

Mr. KELLEY. The *Anniston* is evidently out of commission already.

Admiral COONTZ. The *Anniston* was sold November 14, 1919.

Mr. KELLEY. Is that one of the new scout cruisers?

Admiral COONTZ. No, sir.

Captain DAY. The *Anniston* is the old cruiser *Montgomery*, is it?

Mr. KELLEY. You do not intend to keep her in commission, wherever she is?

Admiral COONTZ. No, sir.

SPECIAL SERVICE SQUADRON.

Mr. KELLEY. What about the *Birmingham*?

Admiral COONTZ. She is the flagship of the special service squadron and we expect to keep her in commission for an indefinite period.

Mr. KELLEY. What is the special service squadron?

Admiral COONTZ. The special service squadron is the squadron that we keep in South American and Central American waters for the promotion of friendly relations with those Republics. It is composed at present of five vessels, of which two are now on the west side of Nicaragua, one was sent to Honduras within the last year at the request of the State Department, one is at Colon, and the other, I think, is at Key West. Those vessels, except the flagship, are of

Tacoma type; part of them are out of commission, and we must keep five in commission.

KELLEY. What is the displacement of the *Birmingham*?

Admiral COONTZ. The *Birmingham* has a displacement of 3,750 tons. I would state at this point that the two ships we are sending to the special service squadron, that is, the special service squadron is being reduced; there will be a net reduction of two vessels.

CRUISERS, THIRD CLASS.

(See p. 240.)

Mr. KELLEY. You will notice that this list is quite an expensive

admiral COONTZ. Yes, sir.

KELLEY. In comparison with its military value in case of hostilities?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many do you want to keep of this list altogether?

Admiral COONTZ. We wish to keep five out of the total number, getting rid of the *Albany* and *New Orleans*, as I said, when they are needed. The five to be kept running are the *Birmingham*, the *San Diego*, the *Denver*, the *Galveston*, and the *Tacoma*; they are in commission. The others are out of commission at the present time. Some of them have been sold, namely, the *Cincinnati*, the *Marblehead*, the *Anniston*, and the *Raleigh*. That leaves a very few like the *Thetis*, the *Chattanooga*, and the *Des Moines* to be retained out of commission for emergencies. In other words, of that total number in six months there will only be five left in commission.

KELLEY. So you are asking the personnel for five in full complement? Will it take some men on the others, or will you just lay them up?

Admiral COONTZ. It will take no men at all after we get the *Albany* and the *New Orleans* out of commission.

Mr. FRENCH. What about the *New Orleans*?

Admiral COONTZ. The *New Orleans* is to be relieved by the *Ashe*, a gunboat, and the *New Orleans* will be brought home, decommissioned and sold.

KELLEY. Did you say these two would go to Asiatic waters?

Admiral COONTZ. No; I said these two in Asiatic waters would be relieved by two we will find listed further down.

KELLEY. I think if the representatives of the Bureau of Navigation are now here we can carry this right along together. Captain Williams, I want the number of men that are required for each of the ships for next year, beginning with the *Delaware*?

Captain WILLIAMS. May I submit this paper, prepared for the Naval Committee? It does not give the information exactly in that form.

Admiral COONTZ. Captain, is that on the basis of the Secretary's report about 95 per cent of the complement?

Captain WILLIAMS. No, sir, it is not; that is the printed list of the number of officers and men, together with the number of officers and number of men on board.

Mr. KELLEY. Admiral Coontz, you are familiar with was submitted to the Naval Committee, I imagine?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Is the list on page 202 of this paper the battleships that you have testified will be kept in commission next year?

Admiral COONTZ. There are two changes, Mr. Kelley; two vessels there too many; there should be 18 instead of 20.

Mr. KELLEY. The *West Virginia* is not built yet, and what other one?

Admiral COONTZ. The *Colorado*.

Mr. KELLEY. Then that makes a difference of about 2,500

Admiral COONTZ. Yes, sir.

Mr. KELLEY. With that correction, Captain, I want you in the record at this point, following the battleships to be in commission, the number of men actually carried on these ships they were in the Navy in 1916, say, on the 1st of July, 1916, the number of men carried on each ship; also the number of men on the 1st of July last, and a third column showing, I suppose, the difference here.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. The number that you ask for next year?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. I would like that developed for each of the groups of ships. For instance, the first group of ships will be the battleships by name, according to Admiral Coontz's testimony as to the ships that are to be in commission next year, with the number of men upon them in 1916, the 1st of January, 1922, and the number of men expected to ask to have carried next year. I want that carried straight down through all these different groups of ships. Or when it comes to destroyers, you can make an average; you need not put down the number for each ship because, I suppose, they are substantially the same and there are so many of them.

Secretary DENBY. I know you want to keep the record clear. I think those two new battleships, the *Colorado* and either the *Virginia* or *Washington*, should also be carried at their probable complement because they will certainly be added to the Navy list in the next fiscal year.

Mr. KELLEY. But when you do that you take out two and take the personnel off of them.

Secretary DENBY. But we want to show the difference.

Mr. KELLEY. We do not want any element in here where there is a duplication of men.

Secretary DENBY. Not at all; but I merely meant to say that there are greater ships.

Mr. KELLEY. You see, you are not required to carry 20 under this treaty.

Mr. BYRNES. I think this is what the Secretary has in mind, the two new ships will require a complement different from the old ships.

Secretary DENBY. They are very much larger and I wanted to show the difference; that is all.

Mr. BYRNES. So you ought to put the two new ones in.

Mr. KELLEY. On the *Delaware* you have 1,196 and on the *Colorado* you have 1,266; about 70 more.

Secretary DENBY. Well, whatever it is. I know you want to get record correct as to the personnel.

Mr. KELLEY. You understand what I want, Captain?
Captain WILLIAMS. I will have that prepared for the record.

MONITORS.

Mr. KELLEY. And I am glad you are here so that we can take up matters as we proceed from this point on. Now, the monitors.

Admiral COONTZ. The monitors all go off for good, except the *Cheyenne*. The *Cheyenne* is training naval reservists.

Mr. KELLEY. Why not make a clean sweep of the monitors?

Admiral COONTZ. Mr. Kelley, the question of the reservists depends entirely on Congress this session. As long as the present law stands it is our duty to have the ships and train them. If they are abolished and no appropriation is made, we will quit; but if you pass a new law which has been prepared, we would still have to train the reservists.

Mr. KELLEY. You would not need a monitor for them, would you?

SHIPS FOR TRAINING NAVAL RESERVES.

Admiral COONTZ. We have applications for very many more than we have. We are training reservists all the way from Duluth, Chicago, and Detroit down to the Atlantic and down to the Gulf and on the west coast, and the Secretary has had to turn down numerous applications. We do the best we can in the small cities to train them and carry out the law.

Mr. KELLEY. Can you not do the training of these boys on ships that are of some military value and not have so many in commission for that special purpose?

Admiral COONTZ. We would like to do so if we had the ships of military value and could afford to pay the money which is necessary to get these people from the inboard cities to the coast and back.

Mr. KELLEY. Where is the *Cheyenne*?

Admiral COONTZ. She is at Baltimore.

Mr. KELLEY. It seem to me you could get a boat to Baltimore to take her place, as no doubt she is very old.

Secretary DENBY. Yes; she was built in 1902.

Mr. KELLEY. What sort of a ship is a monitor now?

Admiral COONTZ. Well, a monitor is a fairly old craft, but these old craft are all we have on which to give reservists their training; we do not take the newer vessels for that purpose, and we have recently taken the *Tallahassee* away from Charleston, S. C., and put her out of commission. Our carrying this on, of course, is under the mandate of the law, and we, of course, do the best we can under the circumstances. You must remember that we had at one time about 0,000 reservists to train, which would take a large number of ships; we did it, but recently about 218,000 of them were disenrolled, but many came back voluntarily and are serving free, and we have to do the best we can to give them what training we can.

Mr. KELLEY. Why do you not put them on your regular ships in a summer?

Admiral COONTZ. Well, there are a number of reasons, Mr. Kelley. One is that the reservists can not get away for the necessary time; also it would cost a great deal of money to use the regular ships. If you will consider the number and residences of these men who are affected I think you will see the thing to do is to keep small ships in the various ports that do not move much and do not use much fuel and only take a few men to man them. We had a very sad experience with that about a year ago, when we put some of them aboard one of the ships of the fleet; it moved about 3,000 miles away and then was held temporarily, due to an emergency which arose. There the reservists were and they were all anxious to get home to their jobs, and we had to use a remarkable amount of exertion to get them back. Of course if there is anything we can find that will replace the *Cheyenne* we are going to do it; we are watching all the time, and, as I say, we have recently got rid of the *Tallahassee*.

Captain WILLIAMS. In many cases these ships serve as quarters for these reservists.

Admiral COONTZ. They have their drills on board; they are used as though they were armories.

Mr. KELLEY. You propose to take out all of the monitors except the *Cheyenne*?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many men will it take for the *Cheyenne*?

Captain WILLIAMS. She probably has a few ship keepers.

Commander LEAHY. She has 34 men.

Captain WILLIAMS. We had a singular experience with one of these monitors and I think we saved the upkeep of her for many years. A man named Isham wanted a test of some shells; we put a monitor in commission, took the Naval Committee down the bay and fired at his target. I think that cost about \$50,000 or \$60,000, but we demonstrated that Mr. Isham's contentions were not correct and put him out of commission.

Mr. KELLEY. And did not hurt the ship?

Captain WILLIAMS. We put the ship in commission and put Mr. Isham out of commission. They were then spoken of as being used for the defense of Washington; they carried some very excellent 12-inch guns and at that time there was doubt as to whether the defenses of the lower river were sufficiently strong, and it was perfectly possible to put these ships, drawing 13 feet of water, at the mouth of the Potomac. I do not know whether that condition obtains now.

Mr. KELLEY. You only want 32 men for these ships?

Captain WILLIAMS. Yes, sir.

DESTROYERS.

Mr. KELLEY. Go ahead with the destroyers.

Admiral COONTZ. The destroyer question is a pretty big question, and within the past week the Secretary has made up his mind to ask the committee this: We have 315 destroyers built, 3 now building, and 12 authorized but upon which work has not begun. Fourteen of those were changed into mine layers, leaving a total of 301. Twenty-one are of the second line and are out of commission. That leaves 280. The Secretary is going to ask the committee to keep 103 of these destroyers in commission with 90 per cent crews and 23 in

commission with 50 per cent crews, making 126 in commission and all the rest out of commission. The fleet of 18 battleships calls for 152 destroyers, but the Secretary is reducing it to this number: Fifty-seven with the Pacific Fleet, 19 with the Atlantic Fleet, 19 with the Asiatic Fleet, and 8 in Turkish waters.

Mr. KELLEY. How many men will that take altogether for these destroyers?

Admiral COONTZ. The complement is 114, and 90 per cent of that is 102. The complement of the others will be 57 men. That will be 103 at 102 men and 23 at 57 men, or a total of 11,817.

Mr. KELLEY. Let us see how many that is in men exactly; 103 with 102 men—that is about 10,000?

Captain WILLIAMS. Ten thousand five hundred and six men.

Mr. KELLEY. Ten thousand five hundred and six for the active destroyers. How many men for the 23 destroyers.

Admiral COONTZ. Fifty-seven on each, or a total of 1,311.

Mr. KELLEY. Could you reduce that a little bit without doing anybody any harm?

Admiral COONTZ. No, sir. We have studied that with the utmost care, and to keep the machinery in condition we have to have that number of men to prevent deterioration. We have tried it and we found that we could not do it.

The CHAIRMAN. You are asking for 11,817 men for the destroyers?

Admiral COONTZ. Yes, sir.

Mr. BYRNES. How many men do you want on the 23 destroyers? Do you want a complement of 57 men?

Admiral COONTZ. Yes, sir.

Mr. BYRNES. And how many for the other destroyers?

Admiral COONTZ. One hundred and three with 102 men.

Mr. KELLEY. How many destroyers has Japan? Colonel Roosevelt says 62.

Admiral COONTZ. Japan has 88 destroyers and 62 additional building or projected.

Mr. KELLEY. You are asking just about 5-3 on destroyers in active commission?

Colonel ROOSEVELT. It is 10-6. We are asking 103 to 62.

Mr. KELLEY. And 23 in part commission for good measure?

Admiral COONTZ. For the training and drilling of our younger officers and men as well as for their maintenance ready for any emergency and for replacements. We have found that the school at Charleston is the best thing of that kind. Although the vessels are going out only 8 hours a month for training the officers and men, and making engineers out of them, and teaching them to handle the boats. I should also say that of the officers many are not graduates of the Naval Academy.

Mr. KELLEY. Please tell us how you are handling those so as to prevent any deterioration?

Admiral COONTZ. We expect to send a part of them to Philadelphia, Pa. We are trying to fix a place there for about 100 of them.

Mr. KELLEY. When you get the back basin cleaned out of your old ships you will have room?

Admiral COONTZ. We will not have so much room. We are cleaning out the basin as fast as we can. The others will have to be placed out of commission in San Diego. The condition is so serious that

we have appointed a special board to consider every phase of it, how best to put them out of commission and to make sure that everything is all right. It will take a certain small number of men to look out for them. Their machinery, engines, and boilers will have to be most carefully attended to and the ships as thoroughly dried as is possible.

Mr. KELLEY. You grease them and shellac them and white lead them and then put a few men on board to watch them?

Admiral COONTZ. We will have a certain number of men attached to the whole group who will go over one after another. We have to watch out for freezing in the winter time. It is an expensive thing to put a destroyer out of commission. To take a destroyer from Charleston to Philadelphia and place her out of commission costs a couple of thousand dollars for fuel in addition to the material, white lead, etc, that has to go into the ship. The supplies and stores must be taken out. It is important to keep these destroyers in tiptop condition. They are the left hand of the fleet, the battleships being the right hand.

Mr. KELLEY. How did you arrive at the idea that you needed 102 in active commission?

Admiral COONTZ. We need 76 for the battleships.

Mr. KELLEY. Four times 18 is 72.

Admiral COONTZ. And a leader for each squadron of 18, making 19 in a squadron. We maintain a squadron in China. There are 8 in Europe which we can not take away. We have been trying a long time to reduce them and have reduced them from 18 to 8. That makes 103.

Mr. KELLEY. Did we have any ships in the eastern Mediterranean before the war?

Admiral COONTZ. I think we cleared everything out of the eastern Mediterranean about the 1st day of August, 1914, when the war broke out.

Mr. KELLEY. We got away from there?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What have we over there particularly to guard—our citizens?

Secretary DENBY. May I answer that question? It is a question of departmental policy.

Mr. KELLEY. Yes, sir.

Secretary DENBY. The reason those ships are kept there is partly to guard American interests in an area that is notoriously disturbed and in which American interests are jeopardized at all times. We are constantly asked by the Department of Commerce to aid in relaying radio messages and to aid in conducting refugees, passengers, or released persons, and the Department of State also. We can not be entirely denuded of ships of war in all Europe, and those are what we have. It looks to me like a very small number.

Admiral COONTZ. There is one station ship in Constantinople, and two subchasers that we are trying to sell.

Colonel ROOSEVELT. You spoke of 23 destroyers that we had half commission as being for good measure. The Japanese will complete, in the year 1922, 11 new destroyers which will go into commission, so they are not simply for good measure, they are for ratio.

Mr. KELLEY. When will they be done?

Colonel ROOSEVELT. In 1922.

Mr. KELLEY. What time?

Colonel ROOSEVELT. Within the next five or six months. They are practically completed.

Secretary DENBY. May I simply say, Mr. Chairman, that we have kept you informed of the number that we planned to put out of commission.

Mr. KELLEY. Yes; I had forgotten to ask you. When does this take effect?

Admiral COONTZ. I am free to state that it will possibly take four months before the last one is out of commission. As I said, the utmost care has to be taken of each one. We can not make any mistake; they are too valuable.

Mr. KELLEY. It is your plan to reduce the destroyer force to 126 by the 1st of July?

Admiral COONTZ. We figure on the 15th of July, but it will be at the earliest practicable date.

Mr. KELLEY. But for purposes of calculation we can figure on 126 for the next year?

Admiral COONTZ. Yes, sir.

PLACES AND PLAN OF PUTTING DESTROYERS OUT OF COMMISSION.

Mr. BYRNES. These destroyers which you put out of commission, what do you do, tie them out like at Charleston?

Admiral COONTZ. If we leave them at Charleston, they will have to be stored in groups. If we can put them out of commission at Philadelphia, they will lie alongside of each other in the basin.

Mr. BYRNES. When you spread them out in the basin, as described, do you require many men to care for them?

Admiral COONTZ. Not very many.

Mr. BYRNES. Have you made any estimate as to how many?

Admiral COONTZ. Not yet, but the number will be small, because the boats are thoroughly prepared before going out of commission. The care-taking force will only have to inspect for deterioration correct any defects that may be found.

Mr. BYRNES. Do you keep mechanics there greasing the machinery to prevent deterioration?

Admiral COONTZ. These men that stay there, the small number, are the destroyer men of the mechanical and electrical ratings who do their business. They would be men who are getting toward the end of their career, and to give them a light job and to put the younger men to sea.

Mr. BYRNES. A few men to a ship could care for the machinery on a day?

Admiral COONTZ. I think so.

The CHAIRMAN. The machinery will be overhauled before the ship is laid up?

Admiral COONTZ. But some one has to go around to find and correct any deterioration that may take place.

The CHAIRMAN. To see that the ice does not jam the ships, but you do not have to overhaul the machinery more than once.

Mr. KELLEY. Why would it not be better to leave the ships down at Charleston; that is a warm climate?

Admiral COONTZ. That is a very hard question to decide. There are two things. One is the likelihood of storms and another is that we will probably take a larger number of men at Charleston. We do not leave vessels lying moored in the harbor without proper care and in Philadelphia we have the protected basin.

Mr. KELLEY. Is the fresh water an element to consider?

Admiral COONTZ. The fresh water in the basin is an element that will be considered and will have considerable influence on the decision. We may leave a part of them at Charleston.

Mr. KELLEY. Does not the back basin freeze up in winter?

Admiral COONTZ. Yes, sir. We may leave them at Charleston.

Mr. KELLEY. Charleston is on a river with fresh water?

Admiral COONTZ. The water at Charleston is brackish and there are strong tidal currents. The tendency of the plumbing to deteriorate is a little greater at Charleston, not much. We may leave some of them at Charleston or San Diego. We are pretty sure to leave some at San Diego.

NECESSARY COMPLEMENTS OF DESTROYERS.

Mr. KELLEY. I think I had it from some officer that 87 men was a good, fair complement for an active destroyer. What is your opinion?

Admiral COONTZ. My honest opinion is that 114 is the proper complement.

Mr. KELLEY. That is the maximum number for war time?

Admiral COONTZ. For economy the Secretary decided on 90 per cent, and those we do keep in commission we want right at the limit of efficiency.

Mr. KELLEY. Does not the 114 include the 10 per cent extra provided for war purposes?

Admiral COONTZ. No, sir. We take 90 per cent of the required complement that she should have at all times. She will go into service with 114 and more.

Mr. KELLEY. I thought that you only had 87 now?

Admiral COONTZ. Some of them have less than that, those in reserve. All those in China have 114. They are a long way from home and we have to keep the crews full.

The CHAIRMAN. Eighty per cent being 91, that would be more than they have now in time of peace when you really do not need the crews full, and it seems to me that 80 would be all that was necessary to keep them in tiptop order?

Admiral COONTZ. They have to cruise and go through their evolutions and drills, and we feel that as we have reduced them so greatly and as we have no light cruisers now, while the British have about 300,000 tons, that we must keep the destroyers up to snuff and the men well trained in case an emergency should occur, because we would have to deplete them to fill up the other destroyers. They are used for all sorts of duty, in scouting and screening, and have to be well up so that when we cut this large number we can better keep those we have left in good shape.

SUBMARINES.

Mr. KELLEY. We will pass now to the submarines.

Admiral COONTZ. I have the director of submarines here, if you could rather have him give the evidence.

Mr. KELLEY. I think you know all about the subject. You can tell on him if you get stumped.

Admiral COONTZ. The first one that I come to is the *D-3*, which is scheduled to go out of commission. I think it is marked in the book. The next is the *F-2*, scheduled to go out of commission; *F-3* scheduled to go out of commission.

Mr. KELLEY. I wonder if we can not shorten that. How many of these submarines do you propose to put out of commission because of old age? I suppose you would take out all of the A's, B's, and C's to start with?

Admiral COONTZ. I can run down the line if you care to have me do so.

NUMBER AND COMPLEMENTS OF, TO BE KEPT IN COMMISSION, 1923.

Mr. KELLEY. What is the total number of submarines you desire to keep in commission for next year?

Admiral COONTZ. The total number of submarines to be kept in commission next year is 84 in full commission and 27 with two-thirds complements.

Mr. KELLEY. How many men will the 84 submarines take?
Commander LEAHY. 2,579.

Mr. KELLEY. How many men on a ship?

Admiral COONTZ. That is under the 90 per cent. It varies from 1 to the latter boats which run 42.

Mr. KELLEY. You have 84 submarines with a total number of how many men?

Captain WILLIAMS. Under the 90 per cent—

Mr. KELLEY (interposing). Never mind talking about that.

Captain WILLIAMS. Two thousand five hundred and seventy-nine men.

Mr. KELLEY. For 84 submarines?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And for those in two-thirds commission?

Captain WILLIAMS. Four hundred and thirty men.

Mr. KELLEY. Making a total of 3,009 for the submarines?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Now, please tell us why you need so many as 84 and 27 submarines?

Admiral COONTZ. Built and building we have 141.

Mr. KELLEY. You have only 111 here?

Admiral COONTZ. One hundred and forty-one is the total number.

Mr. KELLEY. But the 111 are all the submarines that you have of any real value?

Admiral COONTZ. Yes, sir. The idea is this, when we introduce the new ones later—

Mr. KELLEY (interposing). You will take out some of these?

Admiral COONTZ. The older ones would go out.

Mr. KELLEY. One hundred and eleven would be the total number that you expect to keep in commission next year?

Admiral COONTZ. Yes.

Mr. KELLEY. The A's, B's, and C's, that type, were built so ago that they would not be very valuable?

Admiral COONTZ. There are the 15 S type submarine still to completed, but they will not be ready to commission during the year 1923.

Mr. KELLEY. That is what I want to know, why you want to all the ships of this character that you have in commission?

Admiral COONTZ. I think the keeping of submarines in commission is because that is the only way to save them. When a submarine goes out of commission we consider that she is about done for. has a storage battery worth about \$200,000, and if once laid up practically goes to pot, so that the two-thirds of the crew will be the vessels in operation, so that you can save all of the machinery. Submarines are different from destroyers in that respect.

Secretary DENBY. There is another thing about the submarine That is the extreme difficulty of training the men. You can not put them up; you have to train them. The men who are willing to take the extra hazard, we can not afford to let them get down to the lowest point, because you can not train submarine men quickly.

Mr. KELLEY. How many submarines has Japan?

Colonel ROOSEVELT. She has somewhere in the neighborhood of

Mr. KELLEY. Can you give the exact number?

Colonel ROOSEVELT. I can not. My latest advice is that six submarines came into commission in the last five months.

Mr. KELLEY. Five-thirds of 33 would be 55.

Colonel ROOSEVELT. Great Britain has 100 in commission, 84 is 84 per cent of 100.

Mr. KELLEY. You think that Great Britain will keep all of them in commission?

Colonel ROOSEVELT. We do not know what Great Britain will do next year.

COST OF SUBMARINES.

The CHAIRMAN. Can you give me now the cost range?

Admiral COONTZ. I should like first to give the cost of the vessels. The lowest one, I see, O, is \$523,000, and the highest one is \$2,168,000. Those are the cost ranges.

Mr. KELLEY. The \$2,000,000 fleet submarines are the very latest ones?

Admiral COONTZ. Yes, sir. The other figures are \$1,200,000, \$1,300,000, and so on.

Mr. KELLEY. Those are the war costs, most of those were built during the war?

Admiral COONTZ. Yes, sir. Now, the new ones cost \$1,440,000. The total maintenance and operation cost of an O boat last year, Madden, including the officers, rations, stores, operating expenses, etc., was \$53,000.

I will just take a few cases at random. Here is one at \$61,000, another at \$48,000, and another at \$72,000. In the case of the E class, which, of course, cost more, they range from \$83,000 up to \$113,000. I take it that these vessels were in commission all the year around with crews, while vessels that were operating with two-third crews would have nowhere near that expense.

Mr. KELLEY. At this point put in the list of submarines, by name or number, with the number of men on the several dates we have indicated, with a statement showing the exact number of men to be carried on each one.

Captain WILLIAMS. I will supply that. [See p. 216.]

Mr. BYRNES. How many men do you carry on a submarine?

Admiral COONTZ. The number varies from 21 to 42. The average about 30.

Mr. BYRNES. The figures you gave Mr. Madden include the cost of everything?

Admiral COONTZ. Yes, sir; they represent the entire cost.

Mr. KELLEY. Some of them run more than the cost you have stated. The K-boats last year ran to \$146,400, and one of the O-boats cost \$211,000.

SUBMARINE CHASERS.

Mr. KELLEY. Now, we will take up the submarine chasers. I will be glad if you will make a statement about the submarine chasers, showing what is intended to be done with them.

Admiral COONTZ. There were built for the Navy 341 submarine chasers, and there are now left in the Navy 80 submarine chasers. There are in commission 31 submarine chasers; training reservists, 17 submarine chasers; out of commission, 18; on sale, 10, and loaned 4. We expect to reduce the entire number in the naval service to 40.

Mr. KELLEY. Why not make a further reduction of 40?

Admiral COONTZ. That is a question which depends on the future of the Naval Reserve.

Mr. KELLEY. They are not of any good to fight with, or for any other service except to use gasoline, which is a very expensive commodity.

DUTIES OF SUBMARINE CHASERS.

Admiral COONTZ. I must differ from you there. They are good to fight with.

Mr. KELLEY. Let us get them out.

Admiral COONTZ. They did good service in the war. A lot of went across. There are 16 of them in use for training reservists. If we did not have the reservists, then we would very cheerfully put them out. I would like to run over this list showing what service each of them is performing. We have two submarine chasers the coast of Florida. They are keeping the sovereignty of the United States intact by preventing a cable line from being landed out proper authority.

Mr. KELLEY. If they can keep the sovereignty of the United States they are better than I thought.

Admiral COONTZ. We have had to keep those two vessels on the coast at the direction of the President of the United States this time, and I would be glad to read a statement showing in duties the rest of them are engaged.

KELLEY. What guns do they carry?

Admiral COONTZ. They carry one 3-inch gun and two machine guns. They can carry rifles. However, one of them overhauled cable ship by firing across her bow, and she has never landed cable.

The CHAIRMAN. As I understand it, a permit has been granted for that cable.

Admiral COONTZ. No, sir; we have written to the State Department within a week or two in reference to that. These cost a lot of money down there. That is done under the President's order. There are 43 of them in commission, and we would gladly take out 16 except for the reservists. There is no desire on our part except to do what we actually have to do in this connection.

Mr. KELLEY. The figures show that they are costing quite a lot of money. For instance, No. 96 cost \$8,639 for the first three months of this fiscal year.

Admiral COONTZ. That one is at Constantinople.

Mr. KELLEY. We have destroyers at Constantinople, and these little boats will not do much in maintaining the dignity of the United States over there.

Admiral COONTZ. But it will save money, because destroyers doing the same service would cost 5 or 10 times as much.

Secretary DENBY. We will get rid of that one, anyhow.

Mr. KELLEY. No. 154 cost \$6,340 for the first three months of this fiscal year.

Admiral COONTZ. That one is on duty preventing the landing of a cable by order of the President.

Mr. KELLEY. That would be at the rate of \$25,000 a year.

Admiral COONTZ. That subchaser is performing duty under Executive order. We would be glad to take it away.

Mr. BYRNES. The figure on this statement I have is \$13,000. Is that for a year?

Admiral COONTZ. I take it that is for a year. I think these tables run for many years, and anything that comes up is added on.

Mr. BYRNES. If this figure is for a year, then the figures that the chairman read would indicate a greatly increased cost during the last few months.

Mr. KELLEY. When they are going at full blast, I understand that they use 60 gallons of gasoline an hour.

Admiral COONTZ. They have three engines, and I think those vessels that were watching the cable ship were steaming up and down all the time.

Mr. KELLEY. No. 271 cost \$4,508.48 for the first three months of this year.

Admiral COONTZ. That one is training reservists.

Mr. KELLEY. No. 306 cost \$7,609.20.

Admiral COONTZ. That is at San Diego looking after the air forces when they fly out to sea. It tows them back in.

Mr. KELLEY. No. 338 cost \$9,416.97.

Admiral COONTZ. That is another one of those at Constantinople. We have offered that one for sale.

Mr. KELLEY. No. 412 cost \$9,359.41 for three months of this year.

Admiral COONTZ. She is at Chicago for training the reservists. She is making her usual cruises. She is used in training reservists all the way from Chicago down the Lakes.

Mr. KELLEY. If we did not give you any men for these boats, you would not care much, would you?

Admiral COONTZ. If you did not give us any men for the subchasers, we could not provide training for the reservists, which we

are required to do under the law. That is something over which we have no control.

Secretary DENBY. We regard the reservists as a very important adjunct of the Navy, and I think everybody does. We must take care of them in some way.

Admiral COONTZ. The greatest interest is taken in this training along the Lakes, and these boats go all the way from Chicago down to Detroit, and up to Duluth. That is a situation that we must meet.

Mr. KELLEY. They are pretty poor boats to train anybody on.

Secretary DENBY. You can train them in target practice.

Mr. KELLEY. If you did not have these boats, you would not ask us to build them?

Secretary DENBY. Not of this type; no, sir. I was in the Naval Reserves after the Spanish-American War, and there was never a time when we did not have a good ship up there on the Lakes.

Mr. KELLEY. Why not follow that policy now?

Secretary DENBY. Well, give us a good ship. After the Spanish-American War, we had the *Yantic*, the *Don Juan de Austria*, and the *Gopher* on duty up there. That is something we do want very much indeed, and we have a separate bill, which will ultimately reach you, in regard to the stabilizing of the reserves.

Admiral COONTZ. The ninth district, in which, I believe, you and Mr. Madden live, has more than 4,000 of these reservists.

Mr. KELLEY. How many boats do you have up there?

Admiral COONTZ. We have 11. That is a pretty small number. Every one of those boys is enthusiastic, and we get calls from Milwaukee, Detroit, and other places up there asking us to keep it up. If we should leave them, it would break their spirit.

Mr. KELLEY. I would rather strike all this out and send a good ship up there, just as we had before the war.

Admiral COONTZ. There is a treaty that does not allow it.

Mr. KELLEY. How did you manage that before the war?

Secretary DENBY. We had the *Yantic*, the *Don Juan de Austria*, and the *Gopher* up there.

Mr. KELLEY. They were real ships.

Secretary DENBY. Yes, sir. We had the *Yantic*, which was a wooden ship built in 1864; and, also, the *Don Juan de Austria*, one of the captured Spanish ships. We also had the *Gopher*. We had several yachts and vessels of that type that were of no military value, but on which men were given a training that enabled them to go in as first reserve men. They learned their way about ship a little, knew how to wear the uniform, how to shoot, etc. The Naval Militia and naval reservists are blending now, and both are very valuable adjuncts to the Navy.

Mr. KELLEY. How many men do you want for these little boats?

Admiral COONTZ. Not very many. I will ask Captain Williams to answer that.

Mr. KELLEY. How many men do you want for these boats, Captain?

Captain WILLIAMS. I will supply that for the record.

Mr. KELLEY. You can supply the number required for each boat.

Captain WILLIAMS. For those in reserve we will want three men in the nature of caretakers and 15 men for those in full commission. It depends on what they are used for. I will make up a table of that. [See p. 216.]

EAGLE BOATS.

Mr. KELLEY. I notice that you have spent during the first quarter of this fiscal year \$1,012,844 on Eagle boats. Are they worth it?

Admiral COONTZ. Yes, sir.

Secretary DENBY. There are not many Eagle boats, and we will be glad to strike out any that do not seem to be really needed. There are only 48 Eagle boats in commission.

Mr. KELLEY. Last year you spent \$4,208,000 on them, as I rec-

Secretary DENBY. If they are not worth it, we will be glad to get rid of them.

Mr. KELLEY. Do you think they are worth it?

Secretary DENBY. We will furnish you a statement of those we think we must have.

Admiral COONTZ. There are 54 Eagle boats.

Secretary DENBY. There are only 48 in commission.

The CHAIRMAN. How many did you have in 1916?

Admiral COONTZ. None. There are in ordinary at Portsmouth which require 100 men; No. 9 is in the fifth naval district training reserves; No. 10 is out of commission; No. 11 is on duty with marines at San Diego; No. 12 is training reserves in the eleventh district; No. 13 is training reserves in the third district; No. 14 is on duty with submarines at Pearl Harbor; No. 15 is training reserves in the third district; No. 17 is on duty with submarines at Ham Roads; No. 18 is in ordinary at Portsmouth; No. 19 is training reserves in the first district; No. 20 is on duty with the marine Quantico; No. 24 is in ordinary at Portsmouth; No. 26 is training reserves in the third district; No. 27 is training reserves; No. 28 is in ordinary; No. 29 is training reserves on the Maine coast; No. 31 is in the Isthmus; No. 32 is out of commission; No. 33 is on submarine duty; No. 34 is training reserves; No. 35 is training reserves; No. 36 is training reserves; No. 37 is in ordinary; No. 38 is training reserves; No. 39 is training reserves; No. 40 is on duty at air stations; No. 41 is in ordinary; No. 42 is training reserves; No. 43 is out of commission; No. 44 is training reserves; No. 45 is in ordinary; No. 46 is group flagship for 12 Eagles in ordinary at Portsmouth; No. 47 is training reserves; No. 48 is training reserves; No. 49 is training reserves; No. 50 is in ordinary; No. 51 is training reserves; No. 52 has been ordered out of commission; No. 53 is out of commission; No. 54 is training reserves; No. 55 is training reserves; No. 56 is training reserves; No. 57 is training reserves; No. 58 is training reserves; No. 59 is training reserves; and No. 60 is out of commission.

Mr. KELLEY. Nearly all are training reserves?

Admiral COONTZ. Yes, sir; nearly all of them.

Secretary DENBY. I would like to state that the general tenor of the report is that no vessels in the Navy are being sold that have no beneficial use in being made.

Mr. KELLEY. In the meantime, can you not tie them up?

Secretary DENBY. Those that are not in beneficial use will be disposed of.

Mr. KELLEY. How many naval reservists have you trained in a year?

Admiral COONTZ. A large number.

Mr. KELLEY. Where did you train them?

Admiral COONTZ. On the Lakes and on both seaboard.

TRAINING OF NAVAL RESERVE.

Mr. KELLEY. Tell us where these boats that are training naval reservists are located.

Admiral COONTZ. The first one is here at Washington, D. C. They have a very live organization; they cruise on the Potomac river.

Mr. KELLEY. Do they make trips every day?

Admiral COONTZ. They are about as enthusiastic a crowd as you ever saw.

Mr. KELLEY. Is that boat in commission all the time?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Where do you get naval reservists to serve on the boat all the time?

Admiral COONTZ. I meant to say that she goes out frequently. Of course, Captain Williams can tell you more about it than I can.

Captain WILLIAMS. I am not at all certain but that some committee went aboard that Eagle boat when it came over from Richmond.

Mr. KELLEY. How many naval reservists are there in Washington?

Captain WILLIAMS. Two hundred and twenty-five on March 1, 1922.

Mr. KELLEY. When do they train?

Captain WILLIAMS. They train on Saturday and Sunday cruises down the river, and during the summer they make more extended cruises.

Mr. KELLEY. What does the boat do the rest of the time?

Captain WILLIAMS. She lies up here at her dock.

Mr. KELLEY. Steamed up?

Captain WILLIAMS. No, sir. They have guns on board, and it forms a base for the organization. It is a sort of floating armory. To illustrate that point further, in many places we had an old organization of Naval Militia which was primarily a State organization, and the States gave them armories. When the Federal Government needed the reserves, in many places the Government gained the benefit of those militia organizations which had the use of State armories. Here in Washington they have a small armory down here. If I am not mistaken, it is the only one in the District. They overflowed that armory, and they needed encouragement for air drills, etc. That particular organization is peculiar in this respect, that it has in its organization a number of very high class workmen, machinists, etc., who are employed in the Washington Navy Yard.

Mr. KELLEY. Let us not go into the details now, because it will make the record too long. I want to know what these boats are doing, and I see that this one makes cruises on Saturdays and Sundays.

Captain WILLIAMS. And summer cruises.

Mr. KELLEY. How many cruises does it make in the summer?

Captain WILLIAMS. I do not remember exactly those cruises. I remember one that came from Richmond, and I think they were there about three months.

TORPEDO-BOAT TENDERS.

DESTROYER TENDERS.

Mr. KELLEY. The next are torpedo-boat tenders. Are these destroyer tenders or submarine tenders?

Admiral COONTZ. These are destroyer tenders and submarine tenders. Shall I run right down the list?

Mr. KELLEY. Yes. Which ones are you going to strike off? We can make a big reduction here, can we not?

Admiral COONTZ. The *Alert* is to be sold; the *Beaver* will remain in commission; the *Buffalo* will not remain in commission; the *Bush* will remain in commission; the *Dixie* will go out of commission; the *Dobbin* is being built.

Mr. KELLEY. Will the *Dobbin* be in commission this year?

Admiral COONTZ. She will not. The *Fulton* will remain in commission; so will the *Hannibal*; the *Iris* has been sold; the *Lebanon* is out of commission; the *Leonidas* is to be sold; the *Melville* is to remain in commission; the *Panther* is to go out of commission and be sold; the *Pompey* is on the sale list; the *Prairie* is to go out of commission when relieved and is to be sold; the *Prometheus* is to remain in commission; the *Rainbow* is to remain in commission; and the *Whitney* is being built.

Mr. KELLEY. Will the *Whitney* be in commission this year?

Admiral COONTZ. No, sir. I believe there are 13 there, there are 2 being built, there is 1 out of commission, there is 1 already ordered out of commission, there are 2 more ordered out of commission, and we finally expect to keep 6 destroyer tenders.

Mr. KELLEY. Six tenders?

Admiral COONTZ. Yes, sir; six destroyer tenders.

Mr. KELLEY. How many men will those tenders take?

Admiral COONTZ. Captain Williams, I think you had better that in, for this reason, that in the Secretary's latest order he reduces that to six.

Captain WILLIAMS. I will put that in the hearing.

Mr. KELLEY. Do not put in any that are being built.

Captain WILLIAMS. No, sir.

Mr. KELLEY. Put in your list the number of men on each one, following the same order that was suggested awhile ago.

Captain WILLIAMS. All right, sir. (See p. 216.)

Admiral COONTZ. One moment. This list has two kinds of tenders in it.

Colonel ROOSEVELT. You have the destroyer tenders and marine tenders together; as a matter of fact, the list of your destroyer tenders is correct, that is, six are to be kept in commission and a balance are to go out.

Mr. KELLEY. Can you give me approximately the number of the six will require?

Colonel ROOSEVELT. Two thousand seven hundred and fifty-four for the six.

Captain WILLIAMS. The *Beaver*, *Savannah*, *Bushnell*, *Camden*, *Fulton* have 1,618 men on board.

Colonel ROOSEVELT. We are on the submarine tenders as well as on the destroyer tenders, and I think we had better separate them or we will get fearfully mixed up.

Mr. KELLEY. These tenders are both submarine and destroyer tenders, are they?

Colonel ROOSEVELT. No, sir; the six I gave you are destroyer tenders. I think it would be much simpler if you took the destroyer tenders first and went over them and then the submarine tenders.

Mr. KELLEY. But the six are for both and the total is right?

Colonel ROOSEVELT. No.

Captain WILLIAMS. The classification in the Paymaster General's report is not the same classification we have made. The list you are reading from includes both.

Mr. KELLEY. Admiral Coontz, how many tenders will there be with the destroyers?

Admiral COONTZ. Six.

Mr. KELLEY. How many tenders will there be for the submarines?

Admiral COONTZ. Seven.

Mr. KELLEY. Where do we find a list of those?

Admiral COONTZ. As we run down I will find them. The top one is the *Alert*; it is to go out of commission and be sold. The next one is the *Beaver*, submarine tender.

Captain WILLIAMS (interposing). She now has on board 300.

Admiral COONTZ. The *Beaver* stays in commission and she is a submarine tender; the next submarine tender is the *Bushnell* and she remains in commission.

Captain WILLIAMS. She has 179 men on board.

Admiral COONTZ. The *Fulton* stays in commission.

Mr. KELLEY. Is she a submarine tender?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Colonel Roosevelt, how many submarine tenders did you say would be necessary?

Colonel ROOSEVELT. Seven.

Mr. KELLEY. And we need 13 out of this whole list of 19?

Colonel ROOSEVELT. Yes, sir; we need seven submarine tenders, with a complement of about 1,882 men, and we need six destroyer tenders, with a complement of somewhere around 2,200 men.

Admiral COONTZ. There is an extra ship on this list, known as the *Prometheus*, which is a repair ship.

Colonel ROOSEVELT. I think you have it right now; the destroyer tenders first, then the submarine tenders, and then the fleet repair vessel.

Mr. KELLEY. This is a very big item, and you have not reduced it very much. Although you have taken out a large number of destroyers, you have only taken out—

Admiral COONTZ (interposing). Twenty-five per cent; we have taken out two.

Mr. KELLEY. Two tenders?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Last year this service cost over \$10,000,000.

Colonel ROOSEVELT. But I think you will find we have reduced it more than you think. Let me just explain our reasons, and perhaps that will clarify the situation. A destroyer tender goes with a flotilla of destroyers. Now, if you will calculate and see where our destroyers are and how they are disposed of next year, you will get the exact number we have. In other words, we are going to keep 19 destroyers with the Atlantic Fleet, and there will be one tender; we

are going to keep 57 destroyers with the Pacific Fleet, with three tenders; we are going to keep one destroyer flotilla in Asiatic waters, and that is another one, making five; and there would be one more with our 50 per cent complement destroyers, wherever they are based, which would make six.

Mr. KELLEY. And you only have eight now?

Colonel ROOSEVELT. No; we have nine now, have we not?

Admiral COONTZ. No; we only have eight.

Colonel ROOSEVELT. We have 11 now, two of which are building.

Mr. KELLEY. But you do not have those.

Colonel ROOSEVELT. I should have said that we have 13, 2 being being built; taking off those 2 makes 11; therefore we now have 11. You see, I stopped with the 13 and went back to the 11, making 11 now.

Mr. KELLEY. But the admiral says eight, and I would like to know who is right.

Colonel ROOSEVELT. We reduced five of them——

Mr. KELLEY (interposing). Wait a minute, Colonel; you and the admiral are quite at variance here.

Colonel ROOSEVELT. We have 11 and we take 5 out of commission, leaving 6, so we cut them nearly in half.

Mr. KELLEY. Admiral, is that correct?

Admiral COONTZ. Yes; we cut down to six.

Mr. KELLEY. And you are taking out five?

Admiral COONTZ. We are taking out five.

Mr. KELLEY. From the present number or from some number in times gone by?

Admiral COONTZ. We have ordered ——

Mr. KELLEY (interposing). What I want to know is how many you have right at this minute.

Admiral COONTZ. I have got to turn to my destroyer man. How many have we?

Captain KALBEUS. I think a point that is not quite clear is that there are three destroyer tenders recently acquired from the Shipping Board and which are to replace three in that list, so that makes a double number appearing in the list.

Admiral COONTZ. But to-day we have eight in commission, and ordered out of commission two, thus reducing to six.

Captain KALBEUS. You see, you have a double number there, so that you are really counting twice.

Mr. KELLEY. So that you are not making the reduction you thought you were making, because you are only reducing in number from eight to six.

Colonel ROOSEVELT. Last year how many did we have?

Captain KALBEUS. We have never had more than eight destroyer tenders.

Mr. DAVIS. You only have one actually out of commission, but you have three that you have ordered out—is not that right?

Admiral COONTZ. Yes, sir.

Mr. DAVIS. One actually out and three you have ordered out, but not out yet?

Admiral COONTZ. We are going to reduce it to six.

Mr. KELLEY. You are laying up 150 ships and taking out only two of these ships, two out of eight.

Colonel ROOSEVELT. As tenders, yes; but we will have a number of destroyers based on shore stations, and at the shore stations we have tenders.

Mr. KELLEY. Admiral, why could you not get the oil for these ships in peace time without having tenders in commission except when you are making a cruise or something like that, so as to have them in commission only part time?

Admiral COONTZ. They have nothing to do with the oil.

Mr. KELLEY. These are all supply ships?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Why can not the supplies ordinarily be taken from the base?

Admiral COONTZ. Oh, Mr. Kelley, think of the time you would have to consume and the cost of it. This proposition is the outgrowth of a study of years; it keeps the destroyers from going to the navy yards.

Mr. KELLEY. How many tenders did you have before the war?

Admiral COONTZ. We probably had a greater proportion that we have at the present time; before the war I think we only had 50 destroyers.

Mr. KELLEY. And how many tenders did you have?

Captain KALBFUS. I think we had three.

Mr. KELLEY. And now we have 6 with 126; 3 with 50 and 6 with 126, and how many men did you have?

Captain WILLIAMS. For destroyer tenders, 2,326.

Colonel ROOSEVELT. No; for the seven somewhere around 2,200.

Mr. KELLEY. At this point put in a table showing the names of those you intend to keep in commission, with the number of men now carried, the number you want for next year, and if it were in existence before the war, put in the information for that time.

Captain WILLIAMS. Very well. [See p. 216.]

Mr. KELLEY. What was it you said about three tenders from the Shipping Board?

Admiral COONTZ. I will have to ask Colonel Roosevelt to reply to that.

Colonel ROOSEVELT. A little while ago we had a lot of very old ships in commission and an old ship is very expensive to operate. The Shipping Board had a certain number of new ships which would be very much less expensive to operate, and instead of selling the old ships and putting us to the expense of building new ships, which would have become necessary very soon, we took over these new ships. They gave them to us and we disposed of our old ships, thereby cutting our cost of operation.

Mr. BYRNES. How about these two that are building? When are they going to be completed?

Admiral COONTZ. The date of completion is indefinite.

Mr. KELLEY. You do not need them now at all?

Admiral COONTZ. Oh, yes. I would like to read the names of the old ones that are going out, because I know you will recognize some of them.

Mr. KELLEY. Are they tenders?

Admiral COONTZ. Yes. The *Prairie*, the *Panther*, the *Leonidas*, and finally the *Dixie*. You remember them in the last century?

SUBMARINE TENDERS.

Mr. KELLEY. Now the submarine tenders. Give the names of the submarine tenders you intend to keep.

Admiral COONTZ. Do you want me to run down this same line again and finish it up?

Mr. KELLEY. Yes.

Admiral COONTZ. The tenders to be kept are the *Beaver*, the *Bushnell*, the *Canopus*, the *Fulton*, the *Camden*, the *Savannah*, and the *Rainbow*.

Mr. KELLEY. That is how many of them?

Admiral COONTZ. Seven. One ordered out of commission is the *Alert*, and she went out to China, to my certain knowledge, in 1877. The others are fairly new and fitted for the purpose.

Mr. KELLEY. Just about half of this expense is for submarine tenders and half for the destroyers, the way you have it planned next year?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. It seems as though that is quite a lot of money for submarine tenders.

Mr. BYRNES. How many men do you provide for?

Admiral COONTZ. One thousand eight hundred and eighty-two.

Mr. KELLEY. You understand that these lists are to be put in all the way down and are to be along the lines already suggested?

Captain WILLIAMS. Yes, sir. (See p. 216.)

Mr. KELLEY. And in each case give the name and the number of ship, except as to destroyers, which you can put in a lump.

Admiral COONTZ. Of course, you know what a submarine tender does?

GUNBOATS.

Mr. KELLEY. Yes; I do. We will now take up the gunboats. How many are you going to cut off?

Admiral COONTZ. Quite a number. The *Annapolis*. Is that new *Annapolis* being built?

Mr. KELLEY. It looks like an old fellow.

Admiral COONTZ. No; she is gone. The *Asheville* is the new one I spoke of as going to China. There is some mistake about that; the date of commission ought to be 1917 instead of 1897. The *Cashin* has been sold; the *Dolphin* has been sold; the *Don Juan De Austria* has been sold; the *Dubuque* has been selected for the sale list; the *Elcano* is to be retained; the *Essex* is with the Naval Reserves, and the *Gopher* the same.

Mr. KELLEY. Have we not enough Eagle boats for the Naval reserves without using gunboats?

Admiral COONTZ. No, sir; they are all up in your part of the country. The *Helena* is out of commission; the *Isle de Luzon* has been sold; the *Machias* has been sold; the *Marietta* has been sold; the *Monoway* stays in; the *Nantucket* has been loaned to the State of Massachusetts for a nautical school; the *Nashville* has been sold; the *Newport* is used at New York as a nautical school ship, and it does not cost us anything; the *Paducah* has been assigned to train U. S. N. R. F.; the *Palos* stays in China in commission; the *Pamlico* stays in China in commission; the *Petrel* has been sold; the *Quaker*

stays in China; the *Sacramento* goes to China and relieves the *New Orleans*; the *Samar* has been sold; the *Sandoval* has been sold; the *Tulsa* is being built and will not be completed this year; the *Vicksburg* is turned over to the Coast Guard by law; the *Villalobos* is retained in China; the *Wheeling* is with the Naval Reserves; the *Willmette* is with the Naval Reserve in Chicago; the *Wilmington* is in China; the *Wolverine* is with the Naval Reserve; so is the *Yantic*; and the *Yorkton* has been sold. Now, here is another case where there is considerable mixture; some of these come in one place and some in another, and in order to clarify it, I would like to run over those I have missed.

Mr. KELLEY. Where do we get those?

Commander HILL. I do not know; they are all tangled up among miscellaneous ships; they do not run by anything in the book you have.

Admiral COONTZ. There are very few on this other list. The *Boston* is the receiving ship at San Francisco; the *Cheyenne* we have handled before; the *Chicago* we have handled before; the *Iowa* we have handled before; the *Cumberland* is out of commission; the *Essex* we have handled before, as well as the *Gopher*; the *Hartford* we know about; the *Hawk* is at Milwaukee; the *Kearsarge* is being converted to a crane ship and will not require any personnel this year; the *Monadnock* is out of commission at Cavite; we have not been able to get anybody to buy her; the *Nantucket* is loaned to the State of Massachusetts as a nautical school ship; the *Newport* is at New York as a school ship; the *Constellation* is at Newport as a naval relic; the *Constitution* is at Boston as a naval relic; the *Oregon* is at Puget Sound as a naval relic; the *Philadelphia* is the receiving ship at Puget Sound; the *Reina Mercedes* is the Naval Academy station ship; the *Southery* is the receiving ship at Portsmouth.

Mr. KELLEY. You are not adding to the list you have already read?

Admiral COONTZ. I have added a few, like the *Hawk*, but I believe that is the only one I have found, outside of the *Boston*, which appear in other lists.

Mr. KELLEY. That list is just about the same.

Admiral COONTZ. Yes; those gunboats.

NUMBER OF BOATS NEEDED TO TRAIN NAVAL RESERVES.

Mr. KELLEY. You have a lot of Naval Reserve boats in there again, Admiral.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many boats altogether do you think you want for the Naval Reserves?

Admiral COONTZ. If we answer all the requests we would need about 200, because there is no city of any size or no State that seems to have overlooked making a request. I suppose New York alone would take 30 if we would give that many to them, but we have brought the thing down as low as we can.

Mr. KELLEY. And you gave them one?

Admiral COONTZ. We did not give them any destroyers.

Mr. KELLEY. I mean you gave them one.

Admiral COONTZ. No; New York has 13. They are very enthusiastic.

Mr. KELLEY. They have their Naval Reserve up there?

Admiral COONTZ. Yes, sir; Naval Militia and Naval Reserve, but all the militia is in the reserve. Several of the States still keep the Naval Militia as well as the Naval Reserve.

Mr. KELLEY. How many of this list of gunboats are to be used for the Naval Reserve?

Admiral COONTZ. I had 10.

Mr. KELLEY. The *Yantic* is in the list of gunboats?

Admiral COONTZ. She is one of the 10 training naval reservists.

Mr. KELLEY. Ten of them?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What ships do you actually want to add to this list?

Admiral COONTZ. The *Hawk*, *Briar Cliff*, *Commodore*, and *Sturgeon Bay*.

Colonel ROOSEVELT. The *Sturgeon Bay* is going to be taken over by the Naval Militia in New York. My belief is that she does not require personnel.

EXPENSE OF STATE NAUTICAL SCHOOL SHIPS.

Mr. FRENCH. When they are turned over to the States do they require any expense?

Admiral COONTZ. The nautical school ships do to this extent: 'law requires that we shall officer them if they desire it. I think we have one officer on each. At one time we had as many as five. Furthermore, we are compelled to put repairs on them. There only three of them; three States have them. We give each State \$25,000, provided it furnishes \$25,000 itself. So the school ships each year cost us \$75,000.

Mr. FRENCH. First you loan it and then you keep it in repair?

Admiral COONTZ. We do not do it all; from time to time we have repairs. The cost may not exceed \$75,000.

Mr. KELLEY. You add four to the list of gunboats that are to be left. Then make up the table in the same way.

Captain WILLIAMS. Yes, sir. (See p. 216.)

Mr. KELLEY. About these boats which are in China—the *Asherville*, you say, is in China?

Admiral COONTZ. She is going to China to relieve the *New Orleans*.

Mr. KELLEY. What will you do with the *New Orleans*?

Admiral COONTZ. Bring her home and sell her.

Mr. KELLEY. What list is she on now?

Admiral COONTZ. We have gone by her.

Mr. KELLEY. The *Asherville* must be quite a ship?

Admiral COONTZ. She saved us a lot of money.

Mr. KELLEY. She is an old ship?

Admiral COONTZ. No, sir; about four years old.

Mr. KELLEY. Then, this is a mistake?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. It should not be 1917?

Admiral COONTZ. No, sir; the *Asherville* was first commissioned 1920.

Mr. KELLEY. Where did you get her?

Admiral COONTZ. We built her for that purpose.

Mr. KELLEY. And the *Helena*?

Admiral COONTZ. She is out of commission.

Secretary DENBY. If I may say, the Secretary of State has written asking if we could send more ships to China. We can not do it very well just now. China is larger than the United States and it is on their great rivers where they have the disorders and troubles, that these patrol vessels are necessary.

Mr. BYRNES. What about the *Sacramento* and the *Albany*?

Admiral COONTZ. The *Asheville* and *Sacramento* go out to relieve the two ships, *Albany* and *New Orleans*.

Mr. KELLEY. Does the *Paducah* go out there?

Colonel ROOSEVELT. That is the one that goes to the Minnesota reserves.

Mr. KELLEY. You will not need much personnel on her?

Colonel ROOSEVELT. No, sir.

Mr. KELLEY. As far as personnel is concerned, that might be left out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The *Sacramento* goes out to China?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What will be the personnel required for the ships left in the gunboat class with these four to be added, the *Hawk*, the *Briar Cliff*, the *Commodore*, and the *Sturgeon Bay*? There are 22 of these, and 9 of them are naval reserve vessels which will not require much personnel. That would leave 14 that would require full personnel and 9 naval reserve vessels.

Captain WILLIAMS. It is estimated that the vessels will require 2,300 men, but the exact figures will be found in the table. (See 216.)

TRANSPORTS.

Mr. KELLEY. Now the transports?

Admiral COONTZ. The *Ancon*, long since gone; the *Antilles*, same; *Charles*, same; *Eten*, same; *Finland*, same; *Floridian*, same; *General Alava*, Chinese waters; *Great Northern*, gone; *Hancock*, station ship at Honolulu; *Harrisburg*, gone; *Henderson*, in service; *Kentuckiar*, gone; *Lenate*, gone; *Louisville*, gone; *Mallory*, gone; *Manchuria*, gone; *Marica*, gone; *Matsonia*, gone; *Mawi*, gone; *Mongolia*, gone; *Naragansett*, gone; *Nopatian*, gone; *Northern Pacific*, gone; *Orizaba*, gone; *Pastores*, gone; *Paysandu*, gone; *Plattsburg*, gone; *Puritan*, gone; *Santa Ana*, gone; *Santa Cecelia*, gone; *Santa Clara*, gone; *Santa Lena*, gone; *Santa Eliza*, gone; *Santa Malta*, gone; *Santa Rosa*, gone; *Santa Teresa*, gone; *Shoshone*, gone; *Siboney*, gone; *Sierra*, gone; *Sol Navis*, gone; *South Bend*, gone; *Saint Paul*, gone; *Tenadores*, gone; *Troy*, gone; *Wilhelmina*, gone; and *Yale*, gone.

I find that we have now to add to make this table absolutely correct five transports, of which the *Heywood* is not yet under construction.

Mr. KELLEY. Do not bother with that.

Admiral COONTZ. That reduces the remainder on this list to four.

Mr. FRENCH. There are only two on the list you read.

Mr. KELLEY. *General Alava*, *Henderson*, *Hancock*, *Argonne*, and *Chamont*?

Admiral COONTZ. We have now 12 transports and cargo vessels. There is something the matter with these tables.

Colonel ROOSEVELT. I would hardly put the *General Alava* in with the transports.

Admiral COONTZ. She belongs to the Chinese gunboats.

Captain WILLIAMS. Those four will take 887 men.

Admiral COONTZ. And the *General Alava* 54 men?

Captain WILLIAMS. Yes, sir.

Admiral COONTZ. That would be added to the 887?

Captain WILLIAMS. No, sir; included in it.

Mr. KELLEY. This list of transports will be brought into a table just like the others?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. It might be useful to know just why you need these four transports.

Captain WILLIAMS. All right, sir.

Mr. KELLEY. There is something in the President's message about using the Shipping Board to carry where you can do it more economically.

Colonel ROOSEVELT. That has been gone into very carefully and we cooperate wherever we can.

Admiral COONTZ. This is an important matter coming at this time. We have several thousands of men in the Dominican Republic; we have people in Haiti. I believe we have 1,000 men.

Secretary DENBY. About 2,000.

Admiral COONTZ. We have people at the Virgin Islands; we have them in Guam, we have them in the Philippines, we have them at Samoa. We have moved the majority of our fleet from the Atlantic to the Pacific. It is cheaper to take the passengers allowed transportation by law, families, by transport than by rail. We also carry cargo on these transports. Up to recently we had only one good one, the *Henderson*. Recently, when the *Henderson* happened to be away, and we were suddenly called upon to send, within 12 hours, a large number of troops to the Isthmus of Panama, when the trouble existed between Costa Rica and Panama, we had to pile them on a battleship. We had all sorts of trouble. We have some very poor transports and some very small ones. Now, we are cleaning up our stores and we find them very necessary. If we could get commercial transportation to do it we would be very glad. These transports are necessary for our people who are now scattered in so many out-of-the-way places. We have to look out for them and we find it a necessity.

Mr. KELLEY. Where do these boats run?

Admiral COONTZ. Some of them run from San Francisco, and on this coast they have run mainly from Norfolk and Charleston.

Mr. KELLEY. To where?

Admiral COONTZ. They go to every point in the Dominican Republic and Haiti, and, if necessary, to the Virgin Islands. Then they also touch at Guantanamo.

Mr. KELLEY. At the present time which are on the Pacific?

Admiral COONTZ. The *Argonne* and *Chaumont* are on the Pacific and the *Henderson* and the smaller ones are on the Atlantic. Another thing about the cargo vessels is that we can not hire commercial ves-

sels to carry our ammunition or gasoline or explosives; they do not do it.

Mr. KELLEY. The Army has transports which would carry the powder?

Admiral COONTZ. No, sir; they can not carry sufficient.

Colonel ROOSEVELT. I might say for the record that the Army, Navy, and Shipping Board have all recently endeavored to coordinate the situation.

Mr. KELLEY. Did we have any transports before the war?

Admiral COONTZ. Yes, sir. We had the *Buffalo*, *Prairie*, and *Hancock*.

Mr. KELLEY. They were smaller than the ones referred to?

Admiral COONTZ. No, sir; the *Buffalo* is a very good affair, 6,680 tons, and makes 14 knots regularly. I served on her myself. She could carry quantities of freight.

Mr. KELLEY. I suppose your needs for the Orient will be just about the same as before the war?

Admiral COONTZ. The needs there, I should say, will be a little greater on account of the larger fleet in China.

Mr. KELLEY. Please put these ships in.

Captain WILLIAMS. Yes, sir. (See p. 216.)

SUPPLY SHIPS.

Mr. KELLEY. The supply ships come next.

Admiral COONTZ. Supply ships, I would like to run down as before. *Bridge* is to be retained in commission; *Celtic* is to be relieved by the *Pensacola* and go out of commission.

Mr. KELLEY. Where is the *Pensacola* now?

Admiral COONTZ. At Mare Island.

Mr. KELLEY. No; on what list?

Admiral COONTZ. I do not see her here.

Mr. KELLEY. The *Celtic* goes out?

Admiral COONTZ. Yes, sir. The *Culgoa* is also on the sales list.

Mr. KELLEY. You do not want that ship next year?

Admiral COONTZ. No, sir. The *Glacier* has been ordered out of commission to be sold. The *Supply* has been sold. I have here to add to this list these names of store ships. The *Pompey*, out of commission at Cavite, to be sold.

Mr. KELLEY. Put her down.

Admiral COONTZ. The *Rappahannock* and the *Arctic*.

Mr. KELLEY. Just three supply ships?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many men will those take?

Captain WILLIAMS. Six hundred and forty-five men.

Mr. KELLEY. Just make a short statement about the need for those ships?

Admiral COONTZ. Those are ships we have always used in the Navy and we had them before the war. The *Celtic*, *Culgoa*, and the *Glacier* we had in 1898. They carry provisions, food, ice, frozen beef, etc. We have reduced them down now to just three ships.

Mr. KELLEY. Where will they be located mostly?

Admiral COONTZ. The chances are that there will be one with each fleet, with one available to go either place or to carry provisions. Sometimes we can buy much cheaper on one side than on the other.

HOSPITAL SHIPS.

Mr. KELLEY. We now come to the hospital ships.

Admiral COONTZ. We expect to retain two in commission, the *Relief* and the *Mercy*. The others I never heard of. The *Report* has been sold. The *Solace* is out of commission. The *South Port* and the *Sea Gate*, I never heard of them.

Mr. KELLEY. The *Mercy* and *Relief* are to remain in commission?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. One with each fleet, probably?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. Seven hundred and nine men.

Mr. KELLEY. Please put in a table showing that.

Captain WILLIAMS. Yes, sir. (See p. 216.)

FUEL SHIPS.

Mr. KELLEY. We now come to the fuel ships?

Admiral COONTZ. The *Abarenda* is in commission now but will soon go out of commission; she is to be relieved. The *Ajax* is out of commission. The *Alameda* is to go out of commission and be sold. The *Arethusa* is to be retained. The *Robert L. Barnes* is to be retained. The *Brazos* is to be retained; the *Brutus* is to go out of commission; the *Caesar* is to go out of commission; the *Cuyama* stays in; the *Hector* has been wrecked; the *Jason* is with the Pacific Fleet; the *Kanawha* remains in commission; the *Karah* is to go out of commission; the *Langley* has been turned into an aircraft carrier; the *Laramie* goes out of commission; the *Mars* goes out of commission to Norfolk; the *Mattole* not to go in; the *Maumee* is to go out of commission; the *Naushan* is to be sold; fuel ship No. 17 (ex-*Natchez*) is not to go into commission; the *Neptun* goes out of commission; the *Nereus* remains in commission; the *Nero* has been sold; the *Orion* stays in commission; the *Patoka* stays in commission; the *Proteus* stays in commission; the *Ramapo* stays in commission; the *Rapidan* goes out of commission; the *Salinas* goes out of commission; the *Sapelo* remains in commission; the *Sarah Thompson* remains in commission; the *Saturn* goes out of commission; the *Sterling* has been sold; the *Trinity* stays in; the *Vulcan* is already out of commission.

The result of that statement is 4 colliers remain in commission and 10 oilers, a total of 14. The others are to go out of commission.

Mr. KELLEY. Four oilers and ten colliers?

Admiral COONTZ. No, sir; 4 colliers and 10 oilers remain in commission.

Mr. KELLEY. Now, have you the number of men?

Captain WILLIAMS. One thousand and seven for the oilers and 656 for the colliers.

Mr. KELLEY. How many colliers have you in commission now?

Admiral COONTZ. Five.

Mr. KELLEY. And you are taking one out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many oilers are in commission now?

Admiral COONTZ. Twenty.

Mr. KELLEY. And you will take out 10?

Admiral COONTZ. Yes, sir. In a case like that we are taking chances.

Mr. KELLEY. You can make the same table in this connection and insert it at this point.

Captain WILLIAMS. We will do so. (See p. 216.)

MINE SWEEPERS.

Mr. KELLEY. The mine sweepers are next.

Admiral COONTZ. We have there a vast collection of all sorts of ships. They are all put down here under the head of mine sweepers.

Mr. KELLEY. I presume they were used for that purpose during the war?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There is a large list of them there, and it seems to me they might go the way of the Eagle boats, into cold storage. You acquired this whole list during the war?

Secretary DENBY. Yes.

Mr. KELLEY. They do run into a lot of money.

Admiral COONTZ. We have 49 that have to be handled, and in order to get at them we will have to get the names.

Mr. KELLEY. Suppose you give the names of the ones you propose to keep.

Admiral COONTZ. I will run over the list: The *Anderton* is gone; the *Avocet* goes out of commission; the *Auk* is out of commission; the *Bellows* is gone; the *Bittern* will be retained; the *Bobolink* will be retained; the *Bouker* is gone; the *Brant* will be retained; the *Cahill* is gone; the *Cardinal* we will retain; the *Carola* is gone; the *Challenge* will be retained; the *Chewink* will be retained; the *J. Alvah Clark* is gone; the *James H. Clark* is gone; the *Comber* is gone; the *Coney* is gone; the *Conestoga* is gone; the *Cormorant* will be retained; the *Courtney* is gone; the *Crawford* is gone; the *Crest* is gone; the *Curlew* will be retained; the *Douglass* is gone; the *Dreadnaught* is out of commission; the *Easthampton* is gone; the *Edwards* is gone; the *Eider* is out of commission; the *Falcon* will be retained; the *Favorite* is gone; the *Finch* will be retained; the *Flamingo* is out of commission; the *Foam* is gone; the *Freehold* is gone; the *Gallup* is gone; the *Gannet* will be retained; the *Garner* is gone; the *Genesee* will be retained; the *Genevieve* is gone; the *Goliath* is gone; the *Goshawk* is gone; the *Grebe* is out of commission; the *Gypsum Queen* is gone; the *Henlopen* is gone; the *Heron* is out of commission; the *Hinton* is gone; the *Hubbard* is gone; the *Ibis* is gone; the *James* is gone; the *Kingfisher* will be retained; the *Knickerbocker* is gone; the *Lapwing* is out of commission; the *Lark* will be retained; the *Lewes* is gone; the *Long Island* is gone; the *Lowell* is gone; the *Luce Brothers* is gone; the *Lykens* is to go out of commission; the *Mallard* will be retained; the *Mansfield* is gone; the *Edward J. McKeever* is gone; the *Stephan W. McKeever* is gone; the *McNeal* is gone; the *Mendota* will be retained; the *Messick* is gone; the *Nahant* is gone; the *Oriole* is out of commission; the *Osborne* is gone; the *Osprey* is out of commission; the *Owl* is in commission; the *Ortolan* will be retained; the *Palmer* is gone; the *Partridge* will be retained; the *Pelican* is out of commission; the *Peacock* is gone; the *Penguin* will be retained; the *Perobscot* is gone;

the *Pigeon* is out of commission; the *Plover* is gone; the *Pontiac* is gone; the *Quail* will be retained; the *Rail* will be retained; the *Ran* is gone; the *Raven* is gone; the *Redwing* is out of commission; the *Resolute* is gone; the *Robin* will be retained; the *Sadie Ross* is gone; the *Shenandoah* is gone; the *Spartan* is gone; the *Spray* is gone; the *Starling* is gone; the *St. Co. No. 2* is gone; the *Peter C. Stru* is gone; the *Surf* is gone; the *Sussex* is gone; the *Swallow* will be retained; the *Swan* is out of commission; the *Sanderling* is out of commission, the *Sandpiper* will be retained; the *Sappho* is gone; the *Sea Gull* will be retained; the *Sea Rover* is gone; the *Tanager* will be retained; the *Thrush* is out of commission; the *Teal* will be retained; the *Turkey* is out of commission; the *Tern* will be retained; the *Undaunted* will be retained; the *Victorine* is gone; the *Vireo* will be retained; the *Warbler* is gone; the *Whippoorwill* will be retained; the *Widgeon* is out of commission; the *Willet* is gone; and the *Woodcock* is out of commission. Our table shows 49 as the number remaining. Those are the mine sweepers, and I think we had better give it in summary statement. Of the 49 that are left, 2 are out of commission to be transferred to the Coast and Geodetic Survey; 3 are loaned to the Shipping Board—

Mr. KELLEY (interposing). You are talking of all these craft here, Admiral COONTZ. I am talking about the 49 that are left.

Mr. KELLEY. After eliminating all of those that you have temporarily disposed of?

Commander HILL. In that same list there is a number of fleet tugboats mixed up with them.

Mr. KELLEY. We will take up the 49.

Admiral COONTZ. Two are out of commission to be transferred to the Coast and Geodetic Survey.

Mr. KELLEY. They would not be out of the 49?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Then, 49 would be what is left?

Admiral COONTZ. Out of the 49, 3 are loaned to the Shipping Board.

Mr. KELLEY. There are two out of commission and three are loaned to the Shipping Board?

Admiral COONTZ. Yes, sir. There are 10 more to go out of commission, leaving 34, and there are 5 with the Atlantic Train.

Mr. KELLEY. You have the number down to 34. Are there any more to go out?

Admiral COONTZ. There are 4 more to go out of commission, 2 in the Pacific and 2 in Asiatic waters, leaving 30.

Mr. KELLEY. There are only 30 mine sweepers in commission?

Admiral COONTZ. No, sir.

Mr. KELLEY. How many tugs are included in this list of 40?

Admiral COONTZ. Twenty-six of this outfit are mine sweepers.

Mr. KELLEY. Then, you will further reduce the 49 to 26?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There are no tugs included in the 26?

Admiral COONTZ. Yes, sir; there are.

Mr. KELLEY. Why can we not lay up all these boats for a year?

Admiral COONTZ. We have got to keep 10 of them in commission for practice as mine sweepers. We would be badly deficient if we broke out and we did not have them. We have cut the number down to 10.

Mr. KELLEY. You will cut this whole thing to 10?

Admiral COONTZ. The number of mine sweepers goes to 10. We have some tugs in there that I would like to take up somewhere else. The mine sweepers themselves come down to 10.

Mr. KELLEY. You will furnish a list covering the mine sweepers?

Admiral COONTZ. We have 5 as seaplane tenders, 2 for submarine salvage, and 1 that the Bureau of Ordnance is using for experimental purposes. We will need 26 out of this whole number.

Mr. KELLEY. Including 10 mine sweepers?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Captain Williams, you will put in a list covering the 10 mine sweepers?

Captain WILLIAMS. Five hundred and forty men are required for the 10 mine sweepers.

Mr. KELLEY. The other 16 will be put in cold storage, so that they will require no men.

Admiral COONTZ. Yes, sir, that is true. We will have to straighten this list out in regard to the tugs.

Mr. KELLEY. There are some tugs on this list?

Commander HILL. Yes, sir; there are some seagoing tugs.

Mr. BYRNES. What becomes of the 16 vessels?

Admiral COONTZ. They will be disposed of later on.

Mr. KELLEY. Let me see if I have this straight: This list, when I get it, will contain the names of 10 mine sweepers, or tugs, or whatever they may be?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Vessels that will be used for mine-sweeping purposes?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There will be a balance of 16?

Admiral COONTZ. Yes, sir, and we will come to them later.

Mr. KELLEY. We have the number down to 26, and there are 16 that are to be accounted for under some other heading?

Secretary DENBY. Yes, under fleet towing vessels.

Mr. KELLEY. These 10 mine sweepers require 540 men?

Captain WILLIAMS. Yes, sir.

Admiral COONTZ. I would like to state at this point, Mr. Chairman, that we have had time to straighten this out during the lunch hour, the total number of those that we had checked or which should be checked is 30.

Mr. KELLEY. Thirty instead of 26?

Admiral COONTZ. Yes, sir. Some of them should appear in another place under the head of fleet tugs. Thirty is the number to be retained.

Mr. KELLEY. For mine sweepers?

Admiral COONTZ. No, sir; 10 are mine sweepers, 12 are fleet towing vessels, and 8 are tugs.

FLEET TOWING VESSELS.

Mr. KELLEY. Suppose you cover them separately in the table. Tell us about the necessity for 16 fleet towing vessels.

Admiral COONTZ. The fleet towing vessels are divided up, five for each fleet. At the present time we have 15, and we will reduce

that number to 12 by the 1st of July. Those are vessels of a 1,000 tons and they are oil burners. They tow targets and do get towing work about the fleets. They perform all sorts of operations, and they are more economical than large vessels. They carry on an average 45 men each. They are useful in laying ranges, laying down buoys, taking up buoys in harbors, and in of that character. We have used them for a long time, and find very essential and of very great assistance to the fleet. They are economical on account of their small size.

Mr. KELLEY. How many did you have before the war?

Admiral COONTZ. I will have to look that up, because it was that before the war we used battleships to tow, which was not economical.

Mr. KELLEY. These mine sweepers and fleet towing vessels for first quarter of this year cost \$1,481,264.

Admiral COONTZ. The number of mine sweepers has been materially reduced.

Mr. KELLEY. What about the balance of this year?

Admiral COONTZ. We have to use the fleet towing vessels with fleet for the balance of the target practice, and I doubt if much be saved before the end of the year in getting them out of commission.

Mr. KELLEY. At the present time you have 65 vessels of that character in service, and you propose to reduce the number to 20.

Admiral COONTZ. No, sir; there is something wrong there. On page 122 we find 49 vessels in commission, and we are reducing the number to 30.

Mr. KELLEY. Four are to be taken out of this list and put in tugs?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. We will see whether we will keep them there or not. You will make a list of the mine sweepers, showing the present complement and the number in the complement you are proposing next year.

Captain WILLIAMS. I will do so. (See p. 216.)

Mr. KELLEY. I do not suppose any of these were in existence in 1916?

Captain WILLIAMS. No, sir; there may have been some tugs. I want that data for all classes!

Mr. KELLEY. We want it first for the mine-sweeping vessels then for the fleet towing vessels. They will aggregate 26 in the groups.

Captain WILLIAMS. Yes, sir.

Secretary DENBY. Leaving four to be accounted for.

Mr. KELLEY. There will be four to go over among the tugs.

CONVERTED YACHTS.

Mr. KELLEY. We have here a list of the converted yachts.

Admiral COONTZ. The *Actus* is out; the *Adelant* is out; the *Adack* is out; as for the first *Admiral*, we will put a question there for the present; the second *Admiral* is out; the *Adva* is out; the *Aileen* is out; the *Akela* is out; the *Alaska* is out; the *Ale* is out; the *Amagansett* is out; the *Aphrodite* is out; the *Arcady* is out; the *Arctic* is out; the *Arcturus* is out; the *Ardent* is out; the *A*

out; the *Aurora* is out; the *Aztec* is out; the *Barnegat* is out; the *Barnett* is out; the *Bauman* is out; the *Bella* is out; the *Berkshire* is out; the *Bradley* is out; the *Breakwater* is out; the *Albert Brown* is out; the *Calumet* is out; the *Cambridge* is out; the *Caswell* is out; the *Thesapeake* is out; the *Cristobal* is out; the *Corona* is out; the *Corsair* is out; the *Courier* is out; the *Cytheria* is out; the *Dantzer* is out; the *Dempsey* is out; the *Despatch* is out of commission; the *Dorothea* is out; the *Druid* is out; the *Eagle* is out; the *Emeline* is out; the *Florence* is out; the *Galatea* is out; the *General Putnam* is out; the *Houcester* is out; the *Guinevere* is out; the *Harvard* is out; the *Hauoli* is out; the *Hawk* is in; the *Helenita* is out; the *Herreshoff No. 306* is out; the *Herreshoff No. 398* is out; the *Herreshoff No. 321* is out; the *Herreshoff No. 323* is in; the *Isabel* is in; *Johnson* out; *Joyance* out; *Kajeruna* out; *Kwasind* out; *Legonia No. 2* out; *Lydonia* out; *Machinnee* out; *Mann* out; *Manna Hatta* out; *Margaret* out; *May* out; *Mary Alice* out; *Mayflower* in; *McLane* out; *Merchant* out; *McClellan* out; *Merritt* out; *Montauk* out; *Nahma* out; *Narada* out; *Narragansett* out; *Naushon* out; *Niagara* ordered out of commission; *Nokomis* in; *Onoma* out; *Nonpareil* out; *Old Colony* out; *Onward* out; *Owera* out; *Parthenia* out; *Patchogue* out; *Philips* out; *Pigua* out; *Pocomoke* in; *Porpoise* in; *Postmaster General* out; *Priscilla* out; *Raleigh* out; *Rambler* out; *Remlik* out; *Roamer* out; *Rodgay* out; *Samoset* out; *Santee* out; *Sapphire* out; *Satelite* out; *Satilla* out; *Scorpion* in; *Shadyside* in; *Shuttle* out; *Sialia* out; *Springfield* out; *S. P. 117* out; *S. P. 237* out; *S. P. 247* out; *S. P. 328* out; *S. P. 406* out; *S. P. 427* out; *S. P. 467* in; *S. P. 507* out; *S. P. 524* out; *S. P. 582* out; *S. P. 59* out; *S. P. 838* out; *Sultana* out; *Sylph* in; *Sylvia* out; *Tramp* out; *Vedette* out; *Vega* out; *Venetia* out; *Vergana* out; *Vixen* in; *Wacondah* out; *Wadena* out; *Wakida* out; *Wanderer* out; *Wasp* out; *Wenonah* out; *Winchester* out; *Xarifah* out; *Yacona* out; *Yankton* out; *Zara* out; and *Zoraya* out. That leaves in, I think, about seven.

Mr. KELLEY. There are none to add to that from any other list?

Admiral COONTZ. No, sir. I thought it might be advisable to put down the total here because there will be four of them that are left.

Secretary DENBY. There are the *Scorpion*, *Mayflower*, and *Sylph*; you have three right there.

Colonel ROOSEVELT. The *Vixen*, the *Sylph*, *Shadyside*, *Scorpion*, *Pocomoke*—

Mr. KELLEY (interposing). Suppose you start with the first one that is left, the *Advance*.

Admiral COONTZ. The *Advance* is a district craft and we will come her later on, and the *Hawk* we have already counted; the *Herreshoff No. 323* is in a districts somewhere; the *Isabel* is in China; we put her there at the request of the State Department; the *Niagara*,

I said, is ordered out of commission; the *Nokomis* is at Santo Domingo; the *Pocomoke* is a district craft and so is the *Porpoise*; the *Scorpion* is a station ship at Constantinople; the *Shadyside* is a district craft; the *S. P. 467* is a district craft; the *Sylph* is here in Washington, and the *Vixen* is at the Virgin Islands.

Mr. KELLEY. How many men will those 13 vessels take?

Admiral COONTZ. There will be only seven on the list—the *Scorpion*, *Nokomis*, *Vixen*, *Mayflower*, *Sylph*, and the *I*.

Mr. KELLEY. Do you have in mind another?

Admiral COONTZ. Yes, sir; is that what you have?

Captain WILLIAMS. I have the *Scorpion*, the *Nakomis*, the *Mayflower*, the *Sylph*, and you said the *Isabel*.

Admiral COONTZ. Making six.

Captain WILLIAMS. Yes.

Mr. KELLEY. And the other seven will not appear in this list are transferred to the district craft?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You will make a list of those six vessels with proper tables, showing the information we want?

Captain WILLIAMS. Yes, sir. (See p. 216.)

Secretary DENBY. I think the title "yachts" is misleading.

Mr. KELLEY. What would you suggest?

DUTIES AND LOCATION OF YACHTS.

Secretary DENBY. They are naval vessels and I would put where they belong. The President's yacht and the station yachts are here at Washington; I do not mean yachts but vessels; I do not like the word "yacht."

Mr. KELLEY. But they are in the nature of yachts.

Secretary DENBY. Yes; but the *Mayflower* was bought 20 years ago and she is not a converted yacht; the *Sylph* was originally a yacht. A yacht sounds like a luxury, which does not exist in the Navy, and if they could be called vessels it would be better.

Mr. KELLEY. Congress is very willing to provide for the President's yacht.

Captain WILLIAMS. We carry them as special-duty craft.

Secretary DENBY. That is good.

Mr. KELLEY. That is all right.

Secretary DENBY. I merely thought the word yacht did not belong there.

Mr. KELLEY. I do not think it makes very much difference.

Secretary DENBY. They are not pleasure yachts and that is what I am getting at. The *Nakomis* is simply a station ship at San Domingo; the *Isabel* is doing patrol work in China, and the *Sylph* is used as a station ship here in Washington; it is used by the President and by the State Department in carrying representatives of foreign Governments, and it certainly does not constitute a pleasure yacht.

Mr. KELLEY. There is no disposition to question the use of the word.

Secretary DENBY. I simply wanted to straighten out the name of these ships.

Mr. KELLEY. I think perhaps it might be well to make a statement for the record showing what the vessels are for.

Mr. OLIVER. What do I understand the Secretary suggests?

Mr. KELLEY. He suggests calling them special-duty craft, so that Captain Williams in making his tables can put them in as special-duty craft.

Admiral COONTZ. The *Mayflower*, a converted yacht of the going type, is in service as a vessel for the President's official use; the *Sylph*, a small converted yacht suitable for service in inland waters, is used as a Navy Department tender for use by the department in the transportation by water to points on the Potomac River and Chesapeake Bay of the United States and foreign of

official duty and ceremonies, and, incidentally, occasionally used by the Secretary.

Secretary DENBY. And for the official use of the Secretary of the Navy.

Mr. KELLEY. I do not think there is any desire to criticize the use of any of these vessels.

Admiral COONTZ. The *Nokomis* is used in the Dominican Republic, with headquarters at Santo Domingo city. It is a part of the naval force of the United States forces occupying the Dominican Republic and is under the orders of the military governor. It is also used by the governor in the transportation of personnel and material between garrisons at coast points in the Dominican Republic in connection with the military occupation. The *Vixen* is at the naval station, St. Thomas, Virgin Islands. It is used as a station vessel and houses the naval personnel attached to the small naval station at St. Thomas, and incidentally, furnishes a means whereby the governor, a rear admiral, United States Navy, who is also commandant of the naval station, can visit frequently the other islands of the group in connection with his duties. The *Scorpion* is employed as station ship at Constantinople. She is what is commonly known as the stationaire and was formerly used by the ambassador to Turkey in that service. She is now flying the flag of Rear Admiral Mark Bristol, United States Navy, United States high commissioner to Turkey, who is also in command of the United States naval force in Turkey. It has been the practice to have this vessel there for many years. The *Isabel* is in use as the flagship of the commander of the naval forces on the Yangste River, China; he has a large number of gunboats under his command, and each nation carries a officer in a similar position there, and the British have a vice admiral.

Secretary DENBY. It is called the Yangste patrol.

TUGS.

Mr. KELLEY. Now we come to the tugs.

Admiral COONTZ. The *Adirondack* out; the *Algorma* in; the *Allegheny* in; the *Arapaho* to go out of commission; the *Aspinet* out; the *Bagaduce* to go out of commission; the *Catawba* in; the *Cayuga* in; *Chemung* in; the *Clark* out; the *Clio* in; the *Concord* in; the *Conk* in; the *Conwell* out; the *Carrabassett* ordered out of commission; the *Cullen* out; the *Fearless* out; the *Fortune* ordered out of commission; the *Gorgona* out; the *Goucher* out; the *Grampus* ordered out of commission; *Hercules*, the first, out; *Hercules* again, in; *Maratha* out; *Inca* in; *Iuka* in; *Iwana* in; *Iroquois* in; *Kalmia* in; *Kosauqua* in; *Kewaydin* in; *Koka* in; *Lively* in; *Mahopac* in; *Mariner* in; *Massasoit* in; *McDougald* out; *Modoc* in; *Mohave* in; *Mohawk* in; *Montcalm* in; *Napa* in; *Narkeeta* in; *Nausett* in; *Navajo* in; *Navigator* in; *New England* out; *Nottaway* out; *Nyack* out; *Oneonta* out; *Ontario* in; *Oscicola* in; *Passaic* in; *Patapsco* in; *Patuxent* in; *Pawnee* in; *Pawtucket* in; *Penacook* in; *Pentucket* in; *Peoria* out; *Pierce* ordered out of commission; *Pinola* in; *Piscataqua* in; *Potomac* in; *Progressive* out; *Rapido* out; *Relief* out; *Rocket* in; *Sago* in; *Sagamore* in; *Samoset* ordered out of commission; *Sciota* in; *Sebago* in; *Sonoma* in; *Soto-*

yomo in; *Standish* out; *Sunnadin* in; *Tacoma* out; *Tadousac* out; *Tatnuck* out; *Tavernilla* out; *Tecumseh* ordered out of commission; *Tillamook* in; *Tinicun* out; *Traffic* ordered out of commission; *Transfer* in; *Triton* in; second *Triton* out; *Tug No. 40* out; *Tug No. 41* out; *Tug No. 43* out; *Tug No. 46* ordered out of commission; *Tug No. 47* ordered out of commission; *Tug No. 48* ordered out of commission; *Tug No. 49* in; *Tug No. 50* in; *Tug No. 51* ordered out of commission; *Tug No. 52* ordered out of commission; *Tug No. 53* ordered out of commission; *Tug No. 54* in; *Tug No. 55* ordered out of commission; *Tug No. 56* in; *Tug No. 57* ordered out of commission; *Tug No. 58* out; *Tug No. 59* out; *Tug No. 60* out; *Tug No. 61* in; *Tug No. 62* ordered out of commission; *Tug No. 63* ordered out of commission; *Tug No. 64* ordered out of commission; *Tug No. 65* ordered out of commission; *Tug No. 67* ordered out of commission; *Tug No. 68* in; *Tug No. 69* in; *Tug No. 71* out; *Tug No. 72* out; *Tug No. 73* out; *Tug No. 74* ordered out of commission; *Tug No. 75* out; *Tug No. 76* out; *Tug No. 77* out; *Tug No. 78* out; *Tug No. 79* ordered out of commission; *Tug No. 80* ordered out of commission; *Tug No. 81* in; *Tug No. 82* ordered out of commission; *Tug No. 83* ordered out of commission; *Tug No. 84* ordered out of commission; *Tug No. 85* out; *Tug No. 86* in; *Tug No. 87* in; *Tug No. 88* in; *Tug No. 89* in; *Tug No. 90* in; *Tug No. 93* out; *Tug No. 94* out; *Tug No. 95* out; *Tug No. 97* in; *Tug No. 98* in; *Tug No. 99* in; the *Umpqua* in; the *Unadilla* in; the *Uncas* ordered out of commission; the *Vigilant* in; the *Wahnota* in; the *Wandank* in; the *Wando* in; the *Wicomico* in; the *Wompatuk* in; the *Wooley* in, and the *Yuma* in.

Mr. KELLEY. That makes how many tugs in? And there are four more to come out of that other list and go in here?

Admiral COONTZ. Yes, sir.

Mr. BYRNES. There are 78 in, as I counted them.

Mr. KELLEY. And four added.

Mr. BYRNES. No; I did not add four.

Admiral COONTZ. The correct number is 73; 23 plus 50.

Mr. KELLEY. Including the four from the other list?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. And some that appear on another miscellaneous list besides.

Admiral COONTZ. But not to be counted here; the total is 23 plus 50.

Mr. KELLEY. Why do you divide them in that way?

Admiral COONTZ. Twenty-three are seagoing and the others are of the other kind.

Mr. OLIVER. Would it not be helpful if Admiral Coontz in revising his statement, should set out the number that are in and state that all the others are out, giving the number?

Admiral COONTZ. I can do that.

Mr. OLIVER. Instead of following one after another and saying in and out, just set out the number.

Mr. KELLEY. Probably it would be just as well to put in a table saying, "The following tugs are in," and "The following tugs are out."

Secretary DENBY. Those that are in and those that are out.

Mr. KELLEY; Yes, and I think Mr. Oliver's suggestion is a very good one.

Admiral COONTZ. I will have to tell you that we had to do this in a hurry last night, and the final figures are 23 and 50.

Mr. KELLEY. You have in mind the suggestion made by Mr. Oliver, that you simply insert a table showing that the following tugs are in and the following tugs are out?

Admiral COONTZ. Yes, sir. (See p. 216.)

Mr. KELLEY. And, Captain Williams, you put in a table giving the number of men and how many men you estimate?

Captain WILLIAMS. I have not the personnel subdivided that way; they are of different sizes and different sorts and their complements vary from 5, 15, and 25, so that I would rather insert it later.

Mr. KELLEY. Can you not give us an idea of it now?

Captain WILLIAMS. About 2,800.

Mr. KELLEY. That would average 40 men on a tug.

Commander LEAHY. There are 73 tugs.

Mr. KELLEY. But they would not average 40 men?

Commander LEAHY. Some of them are seagoing tugs.

Captain WILLIAMS. It would be less than 30.

Mr. KELLEY. We will say 2,000 as a guess and the table will show the actual number on each one.

Captain WILLIAMS. Absolutely. (See p. 216.)

Mr. KELLEY. Now, Admiral Coontz, how many tugs did we have before the war?

Admiral COONTZ. I suspect we had almost that number, sir; but I will have to verify that. There were 49 listed in 1916.

Mr. KELLEY. What have you to say about that, Mr. Reed?

Mr. REED. There are 49 on the list.

Mr. KELLEY. The fleet tugs, I suppose, are used for the large ships mostly, are they not?

DUTIES OF TUGS.

Admiral COONTZ. If you have five minutes I would like to read a letter on that because I think it is very important. It sounds big when you say we have 200 naval stations, but I do not think it is so big after all. This seems like a large number of tugs, but I would just like to read what the commandant at Philadelphia says, in order to give you an idea what those tugs do.

Mr. KELLEY. Can you not paraphrase it so as to boil it down?

Mr. OLIVER. I think that might be important.

Mr. KELLEY. Very well; go ahead.

Admiral COONTZ. (Reading:)

1. In general the various types of district craft consist of—

- (a) Regular seagoing tugs.
- (b) Smaller harbor tugs.
- (c) Freight-lighter tugs.
- (d) Fuel-oil barges.

These are the only type of craft which require personnel constantly on board for their operations.

2. Seagoing tugs assigned to the district as such are ocean-going tugs used for heavy towing on long distance ocean trips, such as to Panama; for salvage and rescue work in response to S O S calls from vessels in distress; for calibration work; and for shorter interdistrict work. For example, there were two of these tugs, one of

ready for emergency work with distressed shipping around the Capes of the Delaware. Numerous and frequent calls have been made upon these craft; they have responded readily and have many times over saved not only the cost of their operation, but probably the cost of the tug itself in its salvage work with naval and merchant vessels around their station in periods of distress due to weather or accident. In the past these tugs have fully justified themselves, but one has been withdrawn to reduce expense.

The department ordered one of those taken out.

3. Harbor tugs are a smaller type of craft and are part of a navy-yard equipment, but are nonseagoing and are built for operating on inland waters. Their use is confined to the movements of shipping of all kinds around the water fronts at the yards for the purpose of berthing for repairs, in case of fire along the water front, or in emergency in bad weather, all of which work would have to be done by civilian tugs, provided they were available when needed.

4. Lighter-tugs are in effect combined freight barges and tugs carrying their own propelling machinery. These tugs are particularly valuable and useful in transferring stores, supplies, and provisions in large quantities from shore bases to ships of the fleet in the vicinity of navy yards, naval bases, or stations. Their carrying capacity as to freight is very much larger in every way than any of the two foregoing craft, but their seaworthiness and handiness as maneuvering craft for other vessels are quite separate and distinct and not so good as the other craft.

5. Fuel-oil barges are in effect small self-propelled, slow-moving oil-tank steamers about the size of a tug, and are used to transfer oil from local oil centers or from navy yards or stations or civil sources of supply to the fleet or to the yard using them. Their work is quite separate and distinct from any of the foregoing tugs.

6. The question of the reduction of the number of local craft in the district has been given very careful consideration and the number of these craft has been considerably reduced, and, in fact, in some localities has been cut in half. When it comes to the question of the entire elimination of these craft and substituting therefor civilian tugs hired for the occasion, there are several factors which must be taken into consideration.

Mr. KELLEY. We do not want to hire any tugs.

Admiral COONTZ. We made an analysis of the cost of maintaining the tugs, and it came to 50 per cent more by the use of civilian personnel, and he actually analyzed the figures to determine whether the fuel oil barge should be laid up, and finally he came to the conclusion

Unless the Government is willing to carry its own insurance on vessels at a yard on loss from fire or storm, a minimum number of tugs should be maintained, and the cost of these manned by naval crews is 55 per cent less than commercial tugs on the same service.

In other words, they put out fires. Now, in this connection, I would like to call your attention to two facts: You have not read of any large fires in navy yards for a long time, and it has been some time since you have read of any great disasters on either of our coasts. That is because we get out and help these people when we have a boat there. Also, the radio station which we maintain at New York allows those fellows to know where they are in a fog or at any other time. They now come up the Ambrose Channel without any difficulty. Of course, all of this costs money, but I do not believe we have too many of these boats, considering the services they render. As I have said, this looks like a big number, but you must remember we had 49 before the war. The boats we have are busy all the time, but there is no overtime about them. They were formerly manned by civilian crews, and when it came to half past four they quit and there was a call for overtime, so that we had to come to this, and we feel it was the best thing to do.

Mr. KELLEY. Have you had a survey of any kind made as to the number of hours the tugs were used?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. About what proportion of the time are they used?

Commander HILL. We picked two weeks at random; they did not know what weeks we were going to pick, and we told four districts to analyze what their tugs did during those weeks and compare the charges with civilian tugs, to ascertain what would be the charge against naval tugs and the actual cost of the personnel and everything of that kind. Now, here are figures as to tugs in the third district of New York—

Mr. KELLEY (interposing). The only question we want to determine is whether or not we have too many for the service they are called upon to render.

Admiral COONTZ. I do not believe we have, because in pursuance of the Secretary's orders to try to cut out 10,000 men I have just used the ax on them and we have gotten down to this.

Mr. KELLEY. How many have you now?

Admiral COONTZ. I read all of those that went out of commission as I went down the list, and there were 73 left.

Mr. BYRNES. And you propose to keep those 73?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And that is the number you now have?

Admiral COONTZ. No, sir; we have more than that now, but they are going out of commission; I must have read 30 or more that went out of commission in the last month.

Mr. KELLEY. You think you have something like 100 now in commission?

Admiral COONTZ. Yes, sir.

Mr. OLIVER. What is the greatest number of tugs you maintain at any one station?

Admiral COONTZ. It is probably at New York.

The highest number was 118 before we began to cut. Then we reduced the number to 102.

Mr. BYRNES. It is better to keep your tugs with the crews as long as you have enough work to demand the services of the tugs, but if you have tugs at some place where there is not sufficient demand for them to occupy all their time, it might be better then to hire a tug?

Colonel ROOSEVELT. Yes, sir.

Mr. BYRNES. That is what you are doing?

Colonel ROOSEVELT. Yes, sir.

Admiral COONTZ. Another thing, these tugs are there during the day and night every day in the year and are ready for a fire or anything which turns up. Here are the reports from all the districts skinned down to the lowest limit that we feel safe.

Mr. KELLEY. It appears that you have 118 tugs the first three months of the year, at a cost of \$1,145,295.

Admiral COONTZ. Yes, sir. They have been reduced from 118 to 102, and now for next year to 73.

STATEMENT SHOWING ALLOCATION AND COMPLEMENTS OF TUGS.

Mr. KELLEY. Will you please let it appear in your statement just where these tugs are?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Will you put into the record a table of the 73 tugs?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. I think you had better put in a table, also, covering all of these tugs, so that we will have a comparison, with the usual table of complements.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Would it be possible to differentiate those that are used for other than naval purposes?

Admiral COONTZ. Yes, sir; if there are any.

Mr. KELLEY. Those used for Coast Guard services?

Admiral COONTZ. Of course, those are incidental to the other duties, but I will put them separately.

Fleet, harbor, district, and motor tugs.

First district:

Fleet tugs--	Complement
Mohave.....	20
Patapasco.....	30
District tugs--	
Nottoway.....	9
Iwana.....	8
Penacock.....	9
James Wooley.....	(1)
Harbor tugs--	
No. 70.....	8
No. 71.....	8
No. 73.....	(1)

Third district:

Fleet tugs--	
Lykens.....	30
Sagamore.....	20
District tugs--	
Cayuga.....	8
Narkeeta.....	8
Pentucket.....	8
Harbor tugs--	
No. 54.....	0
No. 56.....	0
No. 61.....	8
No. 67.....	8
No. 72.....	8
No. 81.....	8

Fourth district

Fleet tug, Kalmia.....	30
District tugs	
Modoc.....	8
Nausett.....	8
Samoset.....	8

Fifth district:

Fleet tug, Keywaydin.....	30
District tugs	
Advance.....	8
Hercules.....	8
Massasoit.....	8
Mohawk.....	8
Rocket.....	8
Wahnetta.....	8
Wiconico.....	8

¹ Has civil crew.

	Complement.
xth district:	
Fleet tug, Umpqua.....	30
District tug, Sebago.....	9
	39
venth district:	
Fleet tug, Bay Spring.....	24
District tug, Saco.....	9
	33
ghth district:	
Fleet tug, Allegheny.....	24
eventh district:	
Fleet tug, Koka.....	30
Motor tugs—	
No. 86.....	4
No. 88.....	0
	34
velfth district:	
Fleet tugs—	
Tillamook.....	12
Undaunted.....	22
District tugs—	
Lively.....	8
Navigator.....	12
Unadilla.....	11
Vigilant.....	8
Motor tugs—	
No. 94.....	4
No. 95.....	5
No. 96.....	0
No. 99.....	5
	87
irteenth district:	
Fleet tugs—	
Challenge.....	14
Iroquois.....	20
Mahopac.....	30
District tugs—	
Pawtucket.....	8
Sotoyomo.....	8
Motor tug, No. 98.....	4
	84
urteenth district:	
Fleet tugs—	
Keosanqua.....	39
Sunnadin.....	39
Harbor tugs—	
No. 49.....	8
No. 50.....	8
Motor tugs—	
No. 90.....	7
No. 93.....	2
	103
fteenth district:	
Fleet tugs—	
Patuxent.....	30
Sciota.....	20
	50
xteenth district:	
Fleet tug Piscataqua.....	44
District tug Wompatuck.....	18
No. 92.....	8
	70
ashington Navy Yard:	
District tugs—	
Catawba.....	13
Mendota.....	20

	Complement
Indianhead, Md.: District tug Triton.....	12
Total.....	12
Fleet tugs.....	21
District tugs.....	3
Harbor tugs.....	11
Motor tugs.....	16
	71
Fleet tugs with fleet (Contocook, Sanoma).....	2
Total.....	73

Mr. KELLEY. This seems like a large sum. At this rate you will get about \$4,500,000—it will be very much less?

Colonel ROOSEVELT. It will be very much less; yes, sir.

Secretary DENBY. It is a tremendous department and there are a good many stations here and abroad.

MOTOR PATROL SHIPS.

Mr. KELLEY. We now come to the motor patrol.

Admiral COONTZ. I think there are only six of those left.

Mr. KELLEY. If you will just put in a list of those to be kept in.

Admiral COONTZ. Those to be kept in. The *Asp*, the *Clari*, the *Constance II*, *Privateer* and *Zumbrola* are to be retained in commission. That is five.

Mr. KELLEY. That is not a large expense, of course, What are they for?

Admiral COONTZ. The *Zumbrola* is the only vessel of light draft that can travel around in the seventh naval district with headquarters at Key West, which embraces many hundreds of miles of coast. She carries five men.

Mr. KELLEY. What does she travel around for?

Admiral COONTZ. They have a large number of naval reserves in the district, for inspection or any sort of duty. She has to go to these places and she performs any other little duty that may be necessary around the naval station at Key West. The *Clarinda* is in the sixth naval district, *Constance II* is in the first naval district. The *Privateer* is a small craft in New York Harbor.

Secretary DENBY. She is the only vessel that the commandant of the yard has.

Admiral COONTZ. The last time I was there the *Privateer* took me to the Hook and took me out to Rockaway.

Mr. KELLEY. You want to keep five motor patrol vessels?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And about how many men?

Captain WILLIAMS. Forty-five men.

SPECIAL TYPE SHIPS.

Mr. KELLEY. Now, the special types?

Admiral COONTZ. The special types—these are a very much miscellaneous collection. The *Arcostock* is with the air force on the Pacific. The *Baltimore* is the flagship of the mine squadron, Pacific Fleet.

Mr. KELLEY. You do not need the *Baltimore*?

Admiral COONTZ. Next comes the *Black Hawk* a destroyer tender. The *Shawmut* is with the mine force on the Atlantic. The *Vestal* the repair ship on the Pacific. The *Vesuvius* goes out of commission. In other words, we want to keep five of those.

Mr. KELLEY. The *Canandaigua* comes out?

Admiral COONTZ. Yes, sir. The *Roanoke* returned to owners and the *Francisco* is to be sold. The *Hoosatonic* returned to owners. The *Wright* is there, but will go to another place, because she has been made an aircraft tender.

Mr. KELLEY. The *Black Hawk* comes out of this list?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And goes into the list of destroyer tenders?

Admiral COONTZ. Yes, sir.

SHIPS USED AS MINE LAYERS.

Mr. KELLEY. Tell us about the *Baltimore*?

Admiral COONTZ. We have two vessels for mine laying, one the *Shawmut* and the other is the *Baltimore*. We carry a small force in the Pacific and a small force in the Atlantic for the training of men in mine laying.

Mr. KELLEY. What I am getting at is, you said that this was the ship for the mine laying force?

Admiral COONTZ. Yes, sir. She is a mine layer herself.

Mr. KELLEY. You do not have any mine laying vessels?

Colonel ROOSEVELT. She lays mines.

Admiral COONTZ. In all the service we now have 18 which we are reducing to 12, 2 of them being the *Baltimore* and the *Shawmut* and 10 others being the 10 mine layers.

Mr. KELLEY. Is there any classification of the mine layers?

Admiral COONTZ. No, sir. The other 14 destroyers we have already spoken of in the summary of destroyers, but not in detail.

Mr. KELLEY. The destroyers are used as mine layers?

Admiral COONTZ. Yes, sir; 14.

Mr. KELLEY. Why not put the *Baltimore*, *Shawmut* and the other vessels to be used for mine-laying purposes in one group and call them mine-laying vessels?

Admiral COONTZ. That is the way we keep them in our list.

Mr. KELLEY. Please make the table on that basis.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. About how many men will those 12 vessels require?

Admiral COONTZ. The *Baltimore*, *Shawmut*, and 10 light mine layers.

Captain WILLIAMS. The *Baltimore*, *Shawmut*, and the 10 mine layers.

Mr. KELLEY. And those two vessels?

Captain WILLIAMS. One thousand six hundred and ninety, all told.

Mr. KELLEY. About 350 men apiece?

Captain WILLIAMS. Some have more than that. The *Shawmut* is 369, the *Baltimore* 334, and the other 10 vessels 950.

Mr. KELLEY. You want 1,653 men, as your figures show now, for mine-laying vessels?

Captain WILLIAMS. That is right.

Mr. KELLEY. Please put in at this point a list of the 12 ships are to be used for mine-laying purposes and the number of men the number in 1916 for that purpose, if there were any, a number that you ask for.

Captain WILLIAMS. Yes, sir. (See table, p. 216.)

Mr. KELLEY. I wonder if it is necessary to have two mine-laying squadrons, if that is the right name, in peace time?

Admiral COONTZ. We have a pretty small number, considering how we have to jump out in war. I suppose we had 70,000 men in the mine business during the war.

Mr. KELLEY. I know, but you were in a big way then.

Admiral COONTZ. Yes, sir.

Commander HILL. There is one point to remember. The layers are being trained. The 10 are divided into 4 in the A 4 in the Pacific, and 2 for the Asiatic Fleet, for an entirely new of mine laying. There are mine layers which accompany the and which run in advance of the fleet and which cover wide approach of the enemy and drop floating mines and things of sort. It is entirely different.

SPECIAL NONPOWERED SHIPS.

Mr. KELLEY. We now come to the special nonpowered ships.

Admiral COONTZ. Take them all out, sir.

Mr. KELLEY. They all come out except one ship?

Admiral COONTZ. They all come out.

Mr. KELLEY. All the way down?

Admiral COONTZ. Yes, sir. The naval overseas tankers go out.

Mr. KELLEY. Where are they?

Admiral COONTZ. On page 143.

Mr. KELLEY. Naval vessels, transportation service ships—refrigerator?

Colonel ROOSEVELT. They have all been taken out already.

Mr. KELLEY. And the seagoing barges go out?

Colonel ROOSEVELT. Yes, sir.

Admiral COONTZ. Canadian drifters and trawlers go out.

Mr. KELLEY. Unserviceable for war purposes, those are relics; have to keep up?

Admiral COONTZ. The old *Constellation* takes two men and so the *Constitution*. They come under shore stations.

Captain WILLIAMS. A couple of men each.

Admiral COONTZ. The *Bath* is to be retained.

Mr. KELLEY. They are old relics, historical, and that is perfectly all right.

Admiral COONTZ. Part of these are for other duties. We the *Bath*, the *Beaufort*, and the *Hartford*.

Mr. KELLEY. All the others come out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Does the *Granite State* come out?

Admiral COONTZ. We have handled one as a receiving ship.

Mr. KELLEY. That leaves the old *Constellation*, the old *Columbia* and the *Hartford*?

Admiral COONTZ. Is the *Southery* a receiving ship?

Captain WILLIAMS. A receiving ship.

Admiral COONTZ. That will come under the shore stations.

Mr. KELLEY. You can just give us a list of those. I do not suppose the number of men will be material.

The next are the ex-foreign?

Admiral COONTZ. The *Bath*—

Mr. KELLEY (interposing). Everything down to the *Bath* is out?

CARGO SHIPS.

Admiral COONTZ. Yes, sir. The *Bath* is a cargo vessel, the *Beaufort* a cargo vessel, the *Bridgeport* is a destroyer tender. I want to check up later to see if we have not already given the *Bridgeport*.

Commander HILL. She is one of the six destroyer tenders, and the *Uden* is the seventh submarine tender.

Admiral COONTZ. The *Houston* is ordered out of commission. The *Uittery* is a small cargo vessel.

Mr. KELLEY. We have not mentioned her anywhere else?

Admiral COONTZ. No, sir. The *Newport News* is a cargo vessel. The *Pensacola*—

Mr. KELLEY (interposing). Have we not mentioned the *Pensacola*?

Admiral COONTZ. Yes; but we have not put her down. The *Uincy* is ordered out of commission.

Mr. BYRNES. What is the *Pensacola*, a cargo vessel?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The *Rappahannock*?

Admiral COONTZ. I think we have her already in another list.

Mr. KELLEY. The *Savannah*. Some of these vessels appear twice.

Captain WILLIAMS. We have four not mentioned elsewhere.

Mr. KELLEY. And five, the *Pensacola*.

Captain WILLIAMS. Five hundred and ninety men.

Mr. KELLEY. What will you do with the rest of these ships?

Admiral COONTZ. We have not had them. I never heard of most of them.

Mr. KELLEY. Most of them were turned back to the owners after the war.

Colonel ROOSEVELT. How many have you on your list?

Mr. KELLEY. Five.

Admiral COONTZ. I should like to make a correction. These come under the same head of ships from the Shipping Board. We have three in addition to those mentioned.

Mr. KELLEY. Old ones?

Admiral COONTZ. The *Capella*, *Sirius*, and the *Vega*.

Mr. KELLEY. Those ought to come in right now as a part of the auxiliary cargo ships carried in the other list.

Admiral COONTZ. They take the place of those that we just spoke of.

Mr. KELLEY. This should be a table called cargo ships.

Admiral COONTZ. That makes 273 more men for the *Capella*, *Sirius*, and *Vega*.

Mr. KELLEY. Those are cargo ships?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. Eight hundred and sixty-three men all told.

Mr. KELLEY. What are those ships for? You have supply and store ships and repair ships and every other kind of ship and now you have cargo ships with 863 men?

Admiral COONTZ. Of course, we spoke of cargo ships a while ago when we did not have the full list. We have, as I said, these materials and outfits to be carried. There are about 10,000 tons waiting to go to the Pacific.

Mr. KELLEY. How do you distinguish between these transports?

Colonel ROOSEVELT. One is personnel and the other matériel. Primarily the transports are for the personnel and not for matériel.

Mr. KELLEY. What are those at the navy yards, for matériel?

Colonel ROOSEVELT. Transports for personnel.

Secretary DENBY. Perhaps, we saved \$45,000 in transportation.

Colonel ROOSEVELT. We saved \$80,000 the first trip of the *Northern Pacific*.

Admiral COONTZ. From San Francisco to the East. The majority of our men still comes from east of the Mississippi River and when their enlistments expire—naturally the most of them are on the Pacific—we bring them East.

Mr. BYRNES. You bring them to the Atlantic?

Admiral COONTZ. Yes.

Mr. BYRNES. Is that the difference?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What do you mean by saving? Did you count the cost of operation of the vessel, or simply say this vessel is coming anyway and we will bring these people?

Admiral COONTZ. I do not know. The colonel saved \$80,000 more.

Colonel ROOSEVELT. As I recall, I did exactly what the chairman has suggested. I was given the figure of \$140,000. I said immediately, "Does not the ship cost anything to run?" and my idea is that they took off sixty odd thousand dollars, but that is me.

Mr. KELLEY. This is quite an additional list of cargo ships?

Admiral COONTZ. It is, Mr. Kelley.

Mr. KELLEY. You did not have any of this type of ship before the war?

Colonel ROOSEVELT. Oh, yes.

Admiral COONTZ. Yes, sir; we did. I know right now the *Bu*

Secretary DENBY. We had three running down to the Indies. In the old days, before the war, they were not manned by the naval personnel.

Admiral COONTZ. It is no desire on our part to do this and that, we felt we could we pulled 7 out of the 19.

Mr. KELLEY. You are running how many now?

Admiral COONTZ. Twelve transports and cargo vessels the first of July.

Secretary DENBY. They also carry cargo.

Admiral COONTZ. And are always full.

Mr. KELLEY. I can see in war time, of course, that you need many ships like this.

Admiral COONTZ. I would like to give you one example. Suppose the first class of the Naval Academy graduates and suppose they

were all taken into the service, 500, 300 would have to go to the Pacific and if carried across the country there would be \$250 railroad fare. If you put them aboard one of these vessels you will take them around and save all of that \$75,000.

Mr. KELLEY. Less what it costs?

Admiral COONTZ. Less what it costs. There is a fair sample of the great saving. That is the kind of thing the Department claim they are watching all the time.

Mr. BYRNES. What would you take on a trip of that kind, just general cargo?

Admiral COONTZ. We would take almost anything up to 16-inch guns. The *Nevada* has to be regunned. Her guns are at Philadelphia. By this method she does not have to go to the eastern coast to get them.

Mr. BYRNES. A considerable part of the armament would be manufactured near the east coast?

Admiral COONTZ. Yes, sir. Take, for instance, clothing, and the clothing factories are on the east coast. The clothing must go out to the Pacific. We could put it on board at much saving on the exorbitant freight rates. Everything of that character comes along.

Mr. KELLEY. Now, the light tenders are all out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And the Coast Guard has all gone back?

Admiral COONTZ. Yes, sir; and the Coast and Geodetic Survey is gone.

SHIPS MANNED FOR BUREAU OF FISHERIES.

Mr. KELLEY. Has the Bureau of Fisheries all gone back?

Admiral COONTZ. I would like to state for the record, in reference to the Bureau of Fisheries, that the law requires the Navy Department to man, with officers and men, the Bureau of Fisheries ships. There are two that will have to be manned, the *Albatross* and *Fish Hawk*, which carry about 125 men. That is another one of those things that we do not care to handle, but it is put upon us under the law.

Mr. BYRNES. We were discussing that yesterday, and I think the Navy should be paid for that. There was another item that Mr. French called attention to where the Navy should pay the Interior Department for its services in connection with fuel oil.

Mr. KELLEY. Are not those two vessels of the Fish Commission operating all the time?

Admiral COONTZ. No, sir; one of them is now out of commission, but it is going into commission in the next fiscal year.

Mr. KELLEY. How many men do you assign to those vessels?

Admiral COONTZ. We have 44 assigned to one and 81 to the other.

Mr. KELLEY. For the next fiscal year how many do you estimate?

Admiral COONTZ. I should say that it would average 100.

Secretary DENBY. The Secretary of Commerce expects to have two of them in commission next year.

Admiral COONTZ. We will use 125 men in that way.

MISCELLANEOUS SHIPS.

AMMUNITION SHIPS.

Mr. KELLEY. Suppose we take the miscellaneous ships.

Admiral COONTZ. I have only the *Nitro* and *Pyro*, which are two ammunition ships built by the Government and now engaged carrying ammunition, particularly to the Pacific coast and the Philippines.

Mr. KELLEY. All of the rest of those ships are out?

Admiral COONTZ. Yes, sir; they are out.

Captain WILLIAMS. They require 354 men.

Mr. KELLEY. For those two ships?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What are they for?

Admiral COONTZ. They were built especially for carrying ammunition. We will take the case of the U. S. S. *California*, which was built on the Pacific coast and has never been around to the east coast. You can imagine the hundreds of tons of ammunition that she must carry, and one of these vessels carries it around there. From time to time powder must be broken down and gone over and fixed up, and these ships would bring the powder to the point where it was to be attended to.

Mr. KELLEY. One would be all that you would need next year to carry ammunition, would it not?

Admiral COONTZ. No, sir; we are running two at full tilt. If the time should come when one could be dropped out, we would do it quickly.

Mr. KELLEY. How many men do they require?

Captain WILLIAMS. Three hundred and fifty-four.

RADIO STATION SUPPLY SHIPS.

Admiral COONTZ. There are three ships that do not show on this list at all. One is the *Gold Star*, which is a vessel that supplies the naval radio stations in Alaska. It is to relieve the U. S. S. *Saturn*, which is to be sold. That ship is nearly 50 years old. This ship supplies the radio stations in Alaska, which are located as follows: St. Paul, St. George, Dutch Harbor, Kodiak, Seward, Cordova, Juneau, Ketchikan, and the compass stations at Cape Hinchinbrook and Soapstone Point. We carry on those stations, of course, all over the world, and I do not mind saying that we control our communications in central Europe at the present time not only for our own people but for our commercial people. We have several times attempted to draw out, but Mr. Hoover has asked us to remain. They say there are 1,000 American business men in Constantinople, and the cable company would not take a secret message for them. We send their messages by way of France, and down to Constantinople. We have about 20 men in that business in Europe. I might say that the *Gold Star* does work for all of the other departments in Alaska, including helping out the sick on the seal islands, etc.

Mr. KELLEY. You are referring to the *Gold Star*?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. She requires 97 men.

Mr. KELLEY. What are the other two ships?

TARGET REPAIR SHIPS.

Admiral COONTZ. There are two target repair ships, one with each fleet.

Mr. KELLEY. What are their names?

Admiral COONTZ. They are the *Antares* and *Procyon*. They carried two old ships that were placed out of commission. They carried target material, photographic material, etc., and they stay with the fleets during target practice.

Mr. KELLEY. How many men do they carry?

Captain WILLIAMS. Ninety-one each.

Mr. KELLEY. One of them is with each fleet?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. They operate the year around?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. That makes five vessels in that group?

Admiral COONTZ. Yes, sir. I am not sure whether we took up the *Wright* or not.

Colonel ROOSEVELT. That is an airplane tender. Did we take up the *Hannibal*?

Secretary DENBY. The *Hannibal* has been doing surveying work at Honduras.

Mr. KELLEY. You may fix up a table covering those five ships.

Admiral COONTZ. The *Hannibal* is doing surveying duty.

Colonel ROOSEVELT. The *Wright* is an aircraft tender. There are two aircraft tenders, one with each fleet, namely, the *Aroostook* and the *Wright*. There is another one here, the repair ship *Prometheus*, and I do not know whether you took up that one, or not. I do not think you have covered the *Vestal* either.

Commander HILL. They were mentioned separately.

Mr. KELLEY. What list does the *Prometheus* come under?

Commander HILL. Under torpedo boat tenders, on page 118. The *Vestal* appears on page 135, under the heading, "Special type." Both are covered.

Colonel ROOSEVELT. May I suggest that we prepare a list showing the ships under their proper classifications, all the way down, so that they may not be mixed up and appear on the wrong list?

RECEIVING SHIPS AND BARRACKS.

Mr. KELLEY. For the present, we had better stick to what we have, but when we get through with these tables, just as we have asked for them, then a list like this you have shown me might be prepared as a summary.

Which of these receiving ships on page 154 are receiving barracks?

Admiral COONTZ. I will have to ask Captain Williams to answer that question.

Mr. KELLEY. Point out which of them are ships and which are barracks. I am referring to those designated as receiving ships.

Captain WILLIAMS. On this list on page 154?

Mr. KELLEY. Yes; it starts on page 153.

Captain WILLIAMS. I will start with the receiving ship at Hampton Roads, on page 153: That is barracks.

Mr. KELLEY. Let us get that straight: You want 1,100 men to be carried through the fleet, and this will include the number on the *Aroostook* and the *Wright*?

Commander HILL. And the *Langley*. It includes men who are aviation mechanics, repair men, and flyers.

Colonel ROOSEVELT. I do not understand it that way. I understand that the complement of 1,100 men is surplusage over the complements for the *Wright*, the *Aroostook*, and the *Langley*.

Commander HILL. That is right. The complements we have going out are straight navy complements.

Mr. KELLEY. You want men enough to operate the *Aroostook*, the *Wright*, and the *Langley* as ships, and then you want 1,100 men besides those?

Commander HILL. Yes, sir; to go not only on those three ships, but on the battleships which have planes that are launched by catapults.

DISTRIBUTION OF MEN FOR FLEET AVIATION.

Mr. KELLEY. How do you arrive at 1,100 men for that service?

Admiral COONTZ. I will have to ask the Bureau of Navigation to give the figures.

Mr. KELLEY. Suppose you prepare a table showing the distribution of those 1,100 men.

Captain WILLIAMS. I will do so.

Distribution of fleet air detachments, comprising total of 1,100.

	Complement.
Atlantic Fleet:	
Air squadrons.....	57
Scouting Squadron No. 2.....	106
Torpedo Plane Squadron No. 1.....	145
Kite Balloon Squadron No. 1.....	60
Scouting Squadron No. 1.....	36
Total	405
Pacific Fleet:	
Combat Squadron No. 4.....	91
Seaplane Patrol Squadron No. 1.....	106
Spotting Squadron No. 4.....	110
Spotting Squadron (L) No. 1.....	70
Combat Squadron No. 3.....	91
Spotting Squadron No. 3.....	115
Air squadrons.....	64
Combat Squadron (L) No. 1.....	50
Total.....	697
Grand total	1,100

Mr. OLIVER. Of course, you contemplate that you will have adequate facilities for this complement of men to use when they are assigned to the ships. In other words, you would not assign a flying squadron to a ship that was not provided with facilities for flying?

Secretary DENBY. No.

Mr. KELLEY. How many men do you now have scattered through the fleet for this purpose?

Captain WILLIAMS. Six hundred and thirty-two.

Commander HILL. The *Langley* is not yet in commission.

Mr. KELLEY. You have 632 out of the 1,100?

Captain WILLIAMS. Yes, sir.

Commander HILL. And the *Langley* is not yet in commission.

Mr. KELLEY. The *Langley* is a separate proposition.

Commander HILL. About 400 men of the 1,100 are for the *Langley*.

Colonel ROOSEVELT. What Mr. Hill means is this: When the *Langley* is commissioned, then these men will go on board her, because she will have the facilities to take care of them, but they will not be considered as a part of the *Langley's* crew, but they will discharge a special function. They will be airmen. In addition to that, a large number of battleships are being equipped with catapults now, but those vessels have not air people on board now, because we do not put air people on board a ship until the facilities are provided.

Mr. KELLEY. Of course, we will go into that question later in connection with the number of ships to be fitted up for that purpose. I want to have this clear in my mind, and I do not think you gentlemen have the same view of it.

Commander HILL. Yes, sir; we are in accord.

Mr. KELLEY. Your notion is that there are 632 men in the fleet now that are not charged to any particular aviation ships, and that when the *Langley* comes in, she will require 400?

Captain WILLIAMS. Three hundred and thirty-nine.

Mr. KELLEY. That makes practically the 1,100 you are asking for.

Captain WILLIAMS. No, sir. We have two aircraft tenders and one aircraft carrier, and one fleet aviation detachment. The fleet aviation detachment is now composed of 632 men, but the fleet aircraft carrier, which is the *Langley*, is not now in commission. The two aircraft tenders, the *Aroostook* and the *Wright*, have a complement of 536 men.

Mr. KELLEY. How many does that make altogether?

Captain WILLIAMS. That makes 1,476.

Mr. KELLEY. And that is the number you want next year?

Captain WILLIAMS. That is the number we have now; next year we want 1,975.

Mr. KELLEY. You want 1,975 next year for fleet aviation?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You will prepare the tables for us?

Captain WILLIAMS. Yes, sir.

DISTRICT CRAFT.

Mr. KELLEY. We now come to the district craft. What ships have we in the first naval district?

Secretary DENBY. I think we have been over that, Mr. Chairman.

Mr. KELLEY. There was \$4,000,000 worth of them in 1921.

Admiral COONTZ. I would like to ask Mr. Reed whether he has any figures on that.

Mr. KELLEY. Yesterday he did not have a list of any vessels at all.

Commander HILL. We have covered all of those under different headings.

Colonel ROOSEVELT. We have been over the whole thing.

Mr. KELLEY. Are more naval reserves involved?

Secretary DENBY. It is largely naval reserves.

Mr. KELLEY. Why do you have them in here, then?

Secretary DENBY. This book is not our guide; we have been looking it with you. We have had our vessels all mixed up and we have been trying to untangle them.

Commander HILL. We have been over the majority of the harbor tugs and seagoing tugs we went over, under one of tugs, etc., most of them.

Mr. KELLEY. We have been over this long list of tugs and now we come to naval districts and their craft, the operation and maintenance of which cost in 1921 \$4,307,136, and there are no details of the same at all.

Mr. BYRNES. Does that represent shore supplies or ships?

Admiral COONTZ. I will be perfectly frank. I have no idea what it is, and I would like an opportunity to study it; it might be ships or it might be shore supplies.

Captain WILLIAMS. I can give the number of men afloat in districts.

Admiral COONTZ. The ships used by the districts, with the possible exception of a very small number of vessels, have all been enumerated.

Mr. KELLEY. Where does this \$4,000,000 come from?

Admiral COONTZ. That is what I want to find out, and I will be very glad to find out. My impression is that it has nothing to do with ships of that character.

Mr. KELLEY. What is your understanding about it, Mr. Reed?

Mr. REED. My understanding is that it is reported in by ships; that it is in addition to the other charges carried in the other tabular statement. I did not go back to the detailed record cards when I got back to the office.

Secretary DENBY. It is meaningless here if it refers to ships.

Admiral COONTZ. The ships have all been covered except 10 or 15 small craft. This may be pay of reservists, of which we had a large number.

Mr. KELLEY. You will see that only a small part is for pay.

Mr. FRENCH. Yes; only a small part is for pay; a part of it is for equipment and a part for stores.

Mr. KELLEY. And for repairs and alterations.

Secretary DENBY. There are 5 districts in a row here in which there were no repairs; the first one had no repairs, and there are only 6 out of 15 districts that have had repairs or alterations.

Colonel ROOSEVELT. The sum total for repairs is only \$8,688.

Secretary DENBY. Which would not indicate ships.

Mr. KELLEY. Are you asking for any more ships?

Admiral COONTZ. Not to exceed 15, which would be on Captain Williams's list as possible ferryboats; we run a ferryboat from Mare Island to Vallejo, and we run one from Portsmouth, N. H., to the Kittery, and something like that. But we have covered, as far as I know, everything else.

Mr. KELLEY. Now, then, Admiral; I will ask you and the Bureau of Supplies and Accounts to look that up over night so that we will have a clear understanding of it. Now, all through the discussion of ships you have stated at different times that such and such ships were going out of commission.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. In those cases that means absolutely out of commission?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And not in reserve with any men on board?

Admiral COONTZ. No, sir.

Secretary DENBY. But solely in the discretion of the department.

Admiral COONTZ. There might be a few exceptions, but nothing that would amount to anything.

Mr. KELLEY. You have indicated to-day your needs as far as you can see them?

Admiral COONTZ. Afloat, yes, sir; I think we have covered everything.

Mr. KELLEY. We are very much obliged to you.

STATEMENT SHOWING COMPARATIVE STRENGTH OF FIVE GREAT POWERS.

Mr. BYRNES. Admiral, when you summarize the total of your needs afloat, can you, without much trouble, prepare a statement giving the best knowledge of the Navy as to the number of similar ships afloat in the Navy of Great Britain as in the Navy of Japan?

Admiral COONTZ. Yes, sir.

Mr. BYRNES. So we may have it for our information.

Admiral COONTZ. I think we can cover that fairly well.

Comparative fighting strengths of the five great naval powers.

Type.	Great Britain.		United States.		Japan		France.		Italy.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
SHIPS BUILT.										
Battleships, first line.....	26	635,650	18	500,650	7	212,120	7	161,911	6	143,000
Battleships, second line.....	7	127,150	13	202,740	4	71,500	4	74,062	4	50,400
Light cruisers, first line.....	6	175,400			4	110,000				
Light cruisers, second line.....	4	72,100								
Cruisers, first line.....	2	37,200								
Cruisers, second line.....	4	46,100	10	131,300	5	59,200	10	119,108	5	46,500
Light cruisers, first line.....	47	208,915			11	54,850	4	17,802	5	21,000
Light cruisers, second line.....	14	74,465	9	30,450	1	4,100	1	3,444	5	17,300
Destroyer leaders.....	20	34,376					1	2,485	6	10,300
Destroyers, first line.....	179	208,742	294	349,555	43	44,613	10	89,073	27	22,679
Destroyers, second line.....	6	4,200	21	15,582	12	7,850	34	23,947	16	11,840
Submarines, first line.....	45	36,563	58	35,843	14	10,888	16	12,333	10	8,040
Submarines, second line.....	37	15,071	42	15,905	10	3,259	24	9,447	33	9,610
Fleet submarines, first line.....	6	11,280	3	3,318						
Fleet submarines, second line.....	6	7,200								
Monitor submarines.....	3	4,800								
Aircraft carriers, first line.....	4	62,590					1	24,830		
Aircraft carriers, second line.....	3	26,130			1	5,875				
Totals.....	419	1,787,932	468	1,285,343	112	584,255	112	538,442	117	340,669
<i>Building programs.</i>										
Battleships, first line.....			9	357,000	6	253,800				
Battle cruisers, first line.....	4	160,000	6	261,000	8	352,000				
Light cruisers, first line.....	2	19,500	10	75,000	16	85,700	3	24,000	2	16,000
Destroyer leaders.....	1	1,750					6	14,400	6	12,270
Destroyers, first line.....	6	7,450	15	10,620	58	66,865	12	16,800	12	11,680
Submarines, first line.....	6	7,580	35	31,000	32	29,022 ^(f)	12	13,200	4	2,600
Fleet submarines, first line.....			9	14,850						
Aircraft carriers, second line.....			1	19,360	3	27,000				
Totals.....	19	196,320	85	777,830	123	814,387 ^(f)	33	68,400	24	42,550

¹ Japan retains 33 other destroyers, of 381 tons each, in active commission; total active, 88.

² Tonnage unknown.

Mr. KELLEY. If you will let me have your summary—I think it is the proper name for it—of practically all we have gone through for my own use, overnight, I will be much obliged to you. It will cover the ships as you have given them in general. Then it will appear in the record, of course, exactly as we have modified it by changing the ships from one group to another. We want the record to appear as we have developed it here to-day, but I would like the summary which you have used in making up your own figures.

Secretary DENBY. I have here, Mr. Chairman, which I merely took to be filed, a statement showing the economies that have been undertaken by the department during the last year, the orders that have been issued, and the attempts made to bring about economies. I want to show you what we have done in trying to bring about economies.

Mr. KELLEY. As that is rather a large document, could it not be summarized for us, and then it might be possible to publish it in the record?

Secretary DENBY. That might be possible; yes. Then I have another statement which I would like to file, which can not be summarized, showing the mission of the varying classes of vessels, their number, and their complement.

Mr. KELLEY. We could make an abstract of it ourselves, but I suppose it would be better for you to do it yourself.

Admiral, I have read somewhere, I think in the hearings before the House Committee on Naval Affairs, a statement showing the relative number of men on shore as compared to the men afloat. Do you recall what that statement was?

Admiral COONTZ. Yes, sir; I think the Bureau of Navigation makes that as two to one.

Mr. KELLEY. And then after we get the number afloat we simply take one-third, and one-third of that number would fairly represent the shore activities.

Colonel ROOSEVELT. One-half.

Admiral COONTZ. But, Mr. Kelley, in the shore activities are tugs, harbor tugs, *Eagles*, subchasers, miscellaneous, etc., and I have listed here is straight seagoing material, and the men in navigation counts to make that other come in these minor matters in the replacements and everything of that sort. So we should add these to the seagoing and then add half to it, because that is taking a part of that other, and when we get through with the seagoing we simply get down to these various other things, down to the Fish Commission, the special-duty craft, the submarines, destroyers in reserve.

DISTRIBUTION OF SHORE PERSONNEL.

Mr. KELLEY. Have you a distribution of the shore personnel?

Captain WILLIAMS. Not complete, but I can give you a approximate distribution of the total number of men actually in service. 100,999; at that time there were 4,981 in training; the shore establishments had 15,985 and the replacements were 4,062 men in transit.

Mr. KELLEY. That is our old friend again, replacements.

Captain WILLIAMS. That is a difficult puzzle but it still exists; it has not died.

Mr. KELLEY. What is the total for the shore activities?

Captain WILLIAMS. The total is 32,861, roughly.

Mr. KELLEY. About one-third?

Captain WILLIAMS. Just about, sir.

Admiral COONTZ. Have you radio and aviation in there?

Captain WILLIAMS. Aviation in this particular distribution was 2,100.

Mr. KELLEY. Let us have the sheet showing that, just for our use.

Captain WILLIAMS. You may have this, sir.

Distribution as of January 1, 1922.

Total afloat.....	68, 138
Total ashore:	
Operating force.....	11, 392
General detail, under training, patients in hospitals, prisoners, and students in trade schools.....	11, 172
Receiving ships—	
Operating.....	1, 241
General detail.....	1, 642
District vessels.....	3, 352
	<hr/>
	28, 799
In transit.....	4, 062
	<hr/>
	32, 861
Grand total.....	<hr/>
	100, 999

DEPARTMENT'S ATTITUDE TOWARD KEEPING NAVAL RATIO AS ESTABLISHED BY CONFERENCE.

Mr. KELLEY. Mr. Secretary, I will be glad to have you make any general statement you desire to make.

Secretary DENBY. Mr. Chairman, I have no desire to say very much this afternoon. I would like to point out simply that we have during the past year made the most strenuous possible effort at economy, consistent with the maintenance of the fleet we inherited, the American fleet; we got it, we must keep it up; and personally I am very earnestly of the opinion that we must still keep it up, no matter what the fate of the treaty is. The treaty dealt only with some few nations. I do not intend to plead for an excessive Navy, but I am going to plead that the Navy determined by the treaty shall be maintained by the United States. I do not think there is any reason and any justification for increasing it, but I do hope that a fair Navy for the United States shall be maintained as the United States Navy, or call it a treaty Navy, if you like, or whatever other name you choose to call it. We will fall below our ratio of 5-5-3 so terribly if we do not maintain our personnel and ships and if we do not do that we will ourselves have defeated the treaty purpose. So I ask that in the bill you are discussing these and other elements be taken into account.

For the department I wish to say that we are the tools of Congress and will, of course, cheerfully administer whatever Navy we may get. I am not arguing for anything more than that which has apparently been indicated through the Executive branch; I do not know what conversations you gentlemen may have had with the President himself

and I am only taking the things that all the world knows. Accord to the treaty the Navy for the United States was based on 18 battleships; we know what England has and we know what Japan has, but we do not know yet what we are going to have. However, we ought to have a Navy based upon 18 battleships, with the accompanying auxiliaries, cruisers, and other necessary vessels, and the necessary personnel. You can not make a destroyer man in a minute; you can not make a submarine man in a month, and you can not even make a battleship man worth anything inside of a certain number of months of training.

Mr. KELLEY. The only agreement you reached in the conference was relative to battleships.

Secretary DENBY. Yes, sir.

Mr. KELLEY. Before the war we had in commission more battleships than we are allowed to have under the treaty.

Secretary DENBY. Yes, sir.

Mr. KELLEY. And we only had about 50,000 men.

Secretary DENBY. I have forgotten the number of men, but we had a very much reduced Navy, of course, before the war.

Mr. KELLEY. My recollection is that we had 20 battleships in full commission and several in semicommission.

Secretary DENBY. But they were a different type of craft than we build now, and they did not have all of the complicated arrangements made necessary by recent events.

Mr. KELLEY. We had 13 of the same class.

Secretary DENBY. Yes; but, Mr. Chairman, we did not have the same destroyers.

Mr. KELLEY. But our agreement only relates to battleships.

Secretary DENBY. Yes; battleships and airplane carriers; those are the two specific things, but does not everybody realize that a 5-o-Navy means that the Navy is based upon battleships plus the auxiliaries which modern science has developed, and if we should drop our auxiliaries and have only our battleships we would drop far lower than even the figures would indicate.

Mr. KELLEY. When we made this new program, this 1916 program, we had 50 destroyers, and the naval officers said that if we had more to go with the new program, making 100 in all, that would be ample, while now we have 300, in round numbers, with the new program discontinued.

Secretary DENBY. Yes.

Mr. KELLEY. So, of course, we have a vast excess of destroyers over and above what anybody contemplated would be necessary for the ships we had at that time plus the five we have taken in since.

Secretary DENBY. Of course, we all know why we have so many destroyers; they were practically a war measure.

Mr. KELLEY. But simply because we have them is no reason why we should go beyond that which the naval men suggested.

You want 123 for the battleship fleet when you did not expect to have but 100 for all of this battleship fleet, plus those you are going to scrap, and in spite of the further fact that aviation has developed very largely to take the place of destroyers?

Admiral COONTZ. We learned a great many things during the war. We learned the value of the different types of craft, and we know

ous nature of both. We know the need of speedy cruisers
the destroyers.

KELLEY. If we follow the 5-3 plan as to battleships, that is,
to your idea?

COONTZ. Yes, sir.

KELLEY. Plus the building of the light cruisers?

COONTZ. I think you are not far off now.

KELLEY. Will that meet your approval?

COONTZ. I agree as to keeping up the 5-5-3 ratio.

ROOSEVELT. We did not say 5-3; we said 5-5-3. You are
talking 5-3.

COONTZ. If you look at the list of light cruisers of Great
Britain you will see 283,380 tons of light cruisers, and Japan has a
lot more than ourselves.

KELLEY. If you keep on with the development of aviation,
what is the significance of the light cruisers?

COONTZ. Aviation has not gotten very far.

KELLEY. If you are going to spend some money for develop-
ment, why not spend it on aviation and keep the destroyers in com-
mission?

COONTZ. We have cut down. The light cruisers will come
along in the next couple of years.

KELLEY. My recollection is that you always thought of these
light cruisers as scouts to go out and find where the enemy is. Now,
with aviation, why have these ships with 1,100 men for the purpose
of finding out where the enemy is, a small cruiser that has not any
gun power?

COONTZ. They will be the very finest and will help us
along very much.

KELLEY. What is the gun power?

COONTZ. Six-inch guns with speed of 30 or 32 knots.

KELLEY. What would a 6-inch gun do?

COONTZ. A great deal to a destroyer or any other light
cruiser.

DENBY. I would like to emphasize the idea, as a general
proposition, that it is well to keep the Navy up even after making
the treaty and before its ratification. I think it would be disastrous
for the United States to drastically cut the Navy.

KELLEY. Admiral, there is just one other question. When
get the list, as you have indicated, the number of ships in each
are there some activities that if you were deprived of the full
of men that you would prefer to curtail rather than others?

COONTZ. Yes, sir.

KELLEY. If we decide later on that this number of men Con-
gress, perhaps, might not be willing to grant, you will cooperate with
us to the end of eliminating from the list what you have indicated as
desirable?

COONTZ. I certainly would, Mr. Kelley. I think that the
force afloat is what deserves first consideration. I would
not state to shut up a shore station to save money and to save
the men afloat. I would not hesitate, wherever it could be done.
You remember when the last war broke the order of President
on pulled the lieutenants and trained men out of the battleships
on the armed merchant ships. That is what they did. We had to

have trained men and if anything happens I would resort to any alternative to get away from that and save these men, but I feel it is vital to have trained men. We propose as the head along, to indicate where we will try to make further savings in to save the personnel. We have the ships. You talk about destroyers, the question of destroyers had more to do in this conference than almost anything else.

Mr. KELLEY. We will have them, if you do not run them?

Admiral COONTZ. Yes; but you want to run them and you need somebody who can act quickly.

FRIDAY, MARCH 10, 1922.

ESTIMATE OF COMPLEMENTS FOR 1923.

BATTLESHIPS.

Mr. KELLEY. We have with us this morning the Secretary of Navy, Admiral Coontz, Captain Williams, of the Bureau of Navigation, and other assistants.

Admiral, we would like to check over this morning the number of men afloat.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is your latest estimate of the number of men required on the 18 battleships to be in commission next year?

Captain WILLIAMS. The total?

Mr. KELLEY. Yes, sir.

Captain WILLIAMS. The total is 21,721.

Mr. KELLEY. Now, please give me the total number of men on those ships, that is, February 1.

Commander LEAHY. 18,273.

Secretary DENBY. That is the present strength.

Mr. KELLEY. The number on board as of February 1.

CRUISERS.

Now, Captain, you are asking for 10 cruisers besides the ones?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Please name those 10 cruisers.

Captain WILLIAMS. *Huron, Pueblo, Seattle, Charleston, Birmingham, Cleveland, Denver, Galveston, and Tacoma.*

Mr. KELLEY. Please give the number of men you are asking for each one of those ships right down the line in the same order.

Captain WILLIAMS. *Huron, 791; Pueblo, 791; Charleston, 649; Rochester, 544; Birmingham, 300; Cleveland, 288; Denver, 288; Galveston, 288; and Tacoma, 288.*

Mr. KELLEY. The total?

Captain WILLIAMS. Five thousand and eighteen.

Mr. KELLEY. Please give in the same order the number of men on those ships as of February 1.

Captain WILLIAMS. *Huron*, 684; *Pueblo*, 320; *Seattle*, 0; *Charleston*, 13; *Rochester*, 366; *Birmingham*, 276; *Cleveland*, 276; *Denver*, 303; *Alveston*, 302; and *Tacoma*, 277.

Mr. KELLEY. And the total?

Captain WILLIAMS. Two thousand nine hundred and ninety-seven.

Mr. KELLEY. How many men do you require for the *Seattle*?

Captain WILLIAMS. Seven hundred and ninety-one.

Mr. KELLEY. And how many for the *Charleston*?

Captain WILLIAMS. Six hundred and forty-nine.

Mr. KELLEY. That makes how many for those two ships?

Captain WILLIAMS. One thousand four hundred and forty.

Mr. KELLEY. If you add those to the 2,997, it makes 4,437 for all the cruisers?

Admiral COONTZ. I think you should remember one fact, that the *Pueblo*, which is now the receiving ship at New York, having 320, really is to go to relieve the *Utah*. She is now the receiving ship, and she will relieve the *Utah*, which comes home.

Mr. KELLEY. That would reduce the number?

Admiral COONTZ. It would add 300 to the number.

Mr. KELLEY. We allowed 2,100 men for the *Utah*?

Admiral COONTZ. No; not 2,100.

Mr. KELLEY. One thousand one hundred?

Admiral COONTZ. Yes, sir. She is to come back and take her place in the battle line. She is a battleship.

Mr. BYRNES. What becomes of the men on the *Utah*?

Admiral COONTZ. The *Utah* is one of the 18 battleships that we keep under the treaty. We thought we were going to throw her away, but we kept her under the treaty when we had an exchange of views with the other countries. She has already been counted.

Mr. KELLEY. That takes care of the cruisers?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You will eliminate the monitor *Cheyenne*?

Admiral COONTZ. That will be replaced, and we will save that money for something else.

DESTROYERS.

Mr. KELLEY. How many men are you asking for the 126 destroyers?

Captain WILLIAMS. Eleven thousand eight hundred and seventeen.

Mr. KELLEY. As stated the other day, that is 102 for 103 destroyers?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. That will be composed of 103 destroyers, with 0 per cent complements.

Mr. KELLEY. Give the number of men.

Captain WILLIAMS. One hundred and two men, or a total of 10,506; 3 destroyers with 50 per cent complements, 57 men, a total of 1,311.

Mr. KELLEY. Making a total of 11,817.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That is 5 divisions of 19 each and 8 for the Mediterranean.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You will place 23 in partial commission?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many destroyers have you now in full commission?

Captain WILLIAMS. Sixty-five.

Mr. KELLEY. How many men are on board those 65 destroyers?

Captain WILLIAMS. Five thousand six hundred and four.

Mr. KELLEY. Or an average of how many per ship?

Captain WILLIAMS. Eighty-six.

Mr. KELLEY. How many have you now on the destroyers commission?

Captain WILLIAMS. Two hundred and thirteen destroyers.

Mr. KELLEY. With how many men in all?

Captain WILLIAMS. Eleven thousand nine hundred and eight.

Mr. KELLEY. That is an average of how many per ship?

Captain WILLIAMS. An average of 56.

MINE LAYERS.

Mr. KELLEY. Now, we come to the 10 light mine layers. Give the names of the ships.

Commander HILL. I have not the names.

Mr. KELLEY. I have a list of the names: They are the *Luce*, *Mauzy*, the *Lansdale*, the *Mahan*, the *Ingraham*, the *Ludlow*, *Burns*, the *Anthony*, the *Hart*, and the *Rizal*.

How many men are you asking for these 10 light mine layers?

Captain WILLIAMS. Nine hundred and ninety.

Mr. KELLEY. How many have you on board the 10 mine layers now?

Commander HILL. There are 14 in commission, with a total 1,358, which is an average of 97 men per vessel.

Mr. KELLEY. Almost the same figure?

Commander HILL. Yes, sir.

SUBMARINES.

Mr. KELLEY. The number of submarines in active commission what?

Captain WILLIAMS. Eighty-four.

Mr. KELLEY. I mean now. Those new ones have not come that you are figuring on to make up the 84.

Captain WILLIAMS. Sixty-one.

Admiral COONTZ. There were 61 in full commission, but 11 down at the bottom will have to be gone through to find out they are full, or otherwise.

Mr. KELLEY. How many men are you asking for the 84 intend to keep in commission?

Captain WILLIAMS. I am asking for the 84 that we intend to in commission 2,579 men.

Mr. KELLEY. That is an average of about 30 men per ship.

Captain WILLIAMS. Yes, sir; just about 30.

Mr. KELLEY. How many men do you have on board the 61?

Captain WILLIAMS. We have on board 1,714.

Mr. KELLEY. That is almost the same number per ship, or?

Captain WILLIAMS. Yes, sir; it is about the same number.

Mr. KELLEY. Now, as to the submarines to be kept in partial commission, how many men are you asking?

Captain WILLIAMS. Four hundred and thirty.

Mr. KELLEY. For how many ships?

Captain WILLIAMS. Twenty-seven submarines with 430 men.

Mr. KELLEY. How many men would that be on each ship?

Captain WILLIAMS. About 17.

Mr. KELLEY. A little more than half of the complement of those in full commission?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. How many have you laid up now?

Captain WILLIAMS. There are 37 in partial commission.

Mr. KELLEY. How many are on board those 37?

Captain WILLIAMS. Six hundred and ninety-two.

Mr. BYRNES. That makes a total of how many?

Mr. KELLEY. The number of men they are asking for submarines would be 2,579 plus 430, or 3,009.

Now we will take up the three new light cruisers.

Captain WILLIAMS. For the three new light cruisers we are asking 1,257 men.

Mr. KELLEY. What was the designed complement?

Captain WILLIAMS. The complement was 419 men.

Mr. KELLEY. I mean the original complement, as designed.

Admiral COONTZ. Three hundred and thirty-nine on June 28, but while that book was in press it was changed, on account of the guns, antiaircraft guns, etc., to 419.

DESTROYER TENDERS.

(See p. 306.)

Mr. KELLEY. How many men do you require for the six destroyer tenders?

Captain WILLIAMS. Two thousand seven hundred and fifty-nine men.

Mr. KELLEY. What are their names?

Captain WILLIAMS. The *Altair*, the *Denebola*, the *Rigel*, the *Black Hawk*, the *Melville*, and the *Bridgeport*.

Mr. KELLEY. Give the complement of each one of these ships.

Captain WILLIAMS. For the *Altair*, 450; for the *Denebola*, 450; for the *Rigel*, 450; for the *Black Hawk*, 440; for the *Bridgeport*, 520, and for the *Melville*, 449.

Mr. KELLEY. Making a total of 2,759?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Now let us have the number of men on those ships on the 1st of February, by ships.

Captain WILLIAMS. On the *Altair*, 74; on the *Denebola*, 242; on the *Rigel*, 41, on the *Black Hawk*, 349; on the *Bridgeport*, 651; and on the *Melville*, 332.

Mr. KELLEY. Read the complements of those two vessels that are heavily undermanned there.

Captain WILLIAMS. The *Altair*, 450; and the *Rigel*, 450.

Mr. KELLEY. Now, substitute those two figures for the similar figures shown for those ships on the 1st of February, and add up the column.

Admiral COONTZ. We have them mixed up a little. You want complements they gave you, and you want them to make ce additions to them?

Mr. KELLEY. There are two ships which evidently are manner with only a few men, one of them being the *Altair* and the other t *Rigel*.

Captain WILLIAMS. A third one is the *Denebola*.

Mr. KELLEY. I am referring to the small numbers there.

Captain WILLIAMS. The number is 2,474.

Mr. KELLEY. What did you say the complement of the *Rigel* was?

Captain WILLIAMS. Four hundred and fifty.

Mr. KELLEY. In this list you gave the Naval Affairs Committee it is stated as 378.

Admiral COONTZ. At that time she had not been made a tender. We are not getting rid of the *Buffalo* and the *Dixie*.

Mr. KELLEY. You have increased the complement of the *Ri* 52 men?

Admiral COONTZ. Yes, sir; and the *Altair* by 181, and the *Dene* by 200.

NUMBER OF REPAIR MEN CARRIED ON DESTROYER TENDERS.

Secretary DENBY. I would like to have put into the record. Captain Williams has it, what the actual complement of (h is and how many repair men are attached to each of those Those ships are floating repair shops, and I want to know number of men are needed for repairing the destroyers.

Captain WILLIAMS. I will put that in the record.

Complement of personnel for destroyer tenders.

	Ship.	Repair.	Total.		Ship.	Repair.	
Altair.....	316	134	450	Melville.....	262	187	
Denebola.....	316	134	450	Black Hawk.....	316	124	
Rigel.....	316	134	450				
Bridgeport.....	300	220	520	Grand total..	1,896	933	1

Secretary DENBY. In other words, in addition to the men requi to operate the ships, there are men needed to conduct the re work on the destroyers. They carry a lot of mechanics.

ADVANTAGE OF FLOATING REPAIR SHOPS.

Mr. FRENCH. Is that item also included in these figures we ha touching the complements of the different ships?

Secretary DENBY. No; because the men who operate the not run the repair shops. These tenders are floating re Besides serving the destroyers in other ways, they make the n on them.

Mr. FRENCH. Would not these figures be met with in cor with shore duty at some other point?

Secretary DENBY. No; they would not. It simply the long as you have floating repair shops you can save an

amount of money. By having these floating repair shops to take care of the repairs on these vessels, a lot of money is saved, because it obviates the necessity of sending the ships to navy yards to have the repair work done, because these tenders carry skilled mechanics along with them. All I want to know is how many mechanics are employed in addition to the crews.

Mr. OLIVER. To what extent have you been following that practice in the last year?

Secretary DENBY. As completely as possible.

Mr. OLIVER. To what extent are you prevented from making repairs, such as you are prepared to make with tenders of this kind, by the rule requiring that where repairs amount to so much you must bring the vessels to navy yards and have them made, not by the crew, but by the employees of those yards?

Secretary DENBY. I should not think very much. I think the limit is \$5,000, or something of that sort.

Admiral COONTZ. I do not think there is any limit so far as these tenders are concerned.

Secretary DENBY. I do not believe that applies in this connection.

Admiral COONTZ. That provision would not come into play here at all.

Mr. OLIVER. Do you follow the same practice that you so successfully followed abroad during the war?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Just a word about the method of handling these repairs. Suppose you have these floating shops along with your destroyers, and something happens to a destroyer which requires some repairs, have you not the entire crew on your destroyer to make those repairs, without carrying a special crew for repairs on these ships?

Secretary DENBY. They might not have the material with which to make the repairs.

Mr. KELLEY. I am talking now about men.

Admiral COONTZ. They have men on board, but they have not a machine shop.

Mr. KELLEY. I am not talking about material now, but why do you want to carry two or three hundred men on a floating shop to a destroyer, when you have 113 men on the destroyer?

Secretary DENBY. Many of these men are skilled mechanics, who come over and do the work.

Admiral COONTZ. They have, of course, their own ordinary duties to perform, and many of these repairs are beyond their power to make.

We have found, not only at home, but abroad, that we can save the Government hundreds of thousands of dollars in this way.

Mr. KELLEY. Let us stick to the question I asked. Why could you not use the crew of the destroyer to make the repairs?

Admiral COONTZ. You can use them up to a certain point.

Mr. KELLEY. It seems to me that you ought not to add 200 men to the complement of the ship, or to the total number required to man the ship, to make the repairs. That must be a pretty big machine shop.

Admiral COONTZ. The way we did that abroad was the wonder of foreign nations. I do not doubt but that Mr. Oliver went aboard

one of those vessels. That method resulted in a wonderful saving to the Government.

Mr. KELLEY. I am not finding fault with it, but I am trying to hold you down to this proposition: Why can not the men on the destroyers make the repairs?

Commander HILL. On a destroyer of this size there is located a machine shop consisting of a lathe, and that is all they can carry.

Mr. KELLEY. But you have skilled mechanics on the destroyers who could make those repairs, have you not?

Commander HILL. The destroyer's complement carries a certain number of machinists who are good machinists and who do spend on board practically all their time in making repairs that are within limits or within the power of the machinists on board the ships. In other words, there are lots of minor repairs, such as repairing pumps, little auxiliaries, etc., that can be done and are done every day on the destroyer itself. That work is sufficient to keep their whole force busy.

Mr. KELLEY. Why can you not use the men that are on the destroyer to do the repair work on the destroyer while at sea?

Commander HILL. When it comes to retubing a boiler, for instance, the case is different. They have boiler makers and fitters at the navy yard to make those repairs, but in this case the destroyer up alongside this repair ship, and they have boiler makers and fit to do the work. They go on board the destroyer and retube boiler.

Mr. KELLEY. You are asking for 200 men on the ship in addit to the ship's complement.

Commander HILL. Every one of those people follow a special trade, such as pattern maker, molding man, casting man, etc. They make their own castings, or they make the castings for parts of these ships up to a certain tonnage. They have planned it so as to practically keep every single destroyer we have in the Navy out of the navy yards, where there is a big overhead cost for repairs, and they will every bit of it with the destroyer tenders, except where it is a case of docking the vessel. It will save the Government hundreds of thousands of dollars to use these mechanics on the tenders where there is no overhead, and where the mechanics do not get extra pay for overtime. Here you are not carrying a big overhead cost for a establishment in the making of repairs.

Mr. KELLEY. The following are the complements put down with the destroyer tenders as reported to the Committee on Naval Affairs on February 1, 1922: On the *Altair*, 269; on the *Black Hawk*, 241; on the *Bridgeport*, 520; on the *Buffalo*, 400; on the *Denebola*, 250; the *Dixie*, 474; on the *Dobbin*, 341; on the *Melville*, 449; and on *Rigel*, 398. We have put all of the facts in the record about the number, but there may be some discussion about the numbers.

DESTROYER TENDERS.

(See p. 303.)

Admiral COONTZ. I think it should be stated that the *Bt Dixie* are at the present time in commission, and are to be replaced by two of these vessels that have since been assigned to private complements.

Mr. KELLEY. So there will be only six in all?

Admiral COONTZ. Yes, sir.

Secretary DENBY. There is one other thing that I think should go into the record in that connection: The figures reported on February 1 to the Committee on Naval Affairs were the complements of the first two ships, not including the repair men, because they had not gotten their repair men on board at that time. They were taken over from the Shipping Board, and had not been manned with their repair forces.

Mr. KELLEY. The number of men actually on board in the case of the *Altair* and the *Rigel* obviously is very insufficient; the number in one case being only 74 and in the other only 41. In this case we will put down in our figures the full complements.

Secretary DENBY. The *Altair's* complement is given as 269. That is the complement of the ship, and the additional men are the machinists and mechanics.

Mr. KELLEY. What do you make that figure showing the actual number on board, with those two corrections?

Captain WILLIAMS. Two thousand four hundred and seventy-four.

Mr. FRENCH. Do these figures include repairmen on any or all of these ships?

Admiral COONTZ. The figures which Mr. Kelley has brought out are entirely to our satisfaction. In the case of the *Denebola*, she has been changed from 250 to 450 men, which makes a difference of 200, which would make that 2,474, which is what should stand.

Mr. KELLEY. The only dispute about any of the ships is as to those to go in.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. But have not yet been in commission as destroyer tenders.

Admiral COONTZ. Yes, sir.

SUBMARINE TENDERS.

Mr. KELLEY. Now the submarine tenders. Give them by name first.

Captain WILLIAMS. The *Beaver*, the *Bushnell*, the *Camden*, the *Fulton*, the *Rainbow*, the *Savannah*, and the *Canopus*.

Mr. KELLEY. Give us the number of men you are asking for each ship.

Captain WILLIAMS. We are asking: For the *Beaver*, 292; for the *Bushnell*, 195; for the *Camden*, 344; for the *Fulton*, 134; for the *Rainbow*, 297; for the *Savannah*, 338; for the *Canopus*, 282; a total of 1,882.

These ships had on board on February 1 as follows: *Beaver*, 300; *Bushnell*, 179; *Camden*, 378; *Fulton*, 131; *Rainbow*, 322; *Savannah*, 308; *Canopus*, 486; a total of 2,104.

Mr. KELLEY. The numbers do not seem to agree with the printed list.

Admiral COONTZ. You have one short, the *Canopus*, which was explained the other day.

Mr. KELLEY. But even then the numbers do not quite agree, but I understood you to say you are asking for 1,882.

Captain WILLIAMS. Yes, sir.

HOSPITAL SHIPS.

Mr. KELLEY. Now the hospital ships.

Captain WILLIAMS. They are the *Mercy* and the *Relief*, and we are asking a total of 709 men.

Mr. KELLEY. How many have you on board now?

Captain WILLIAMS. We are asking for the *Mercy* 348 men and for the *Relief* 361; we have on the *Mercy* at the present time 268 men and on the *Relief* 411 men, a total of 679 men.

GUNBOATS.

Mr. KELLEY. Read the list of gunboats you are asking to have commissioned next year.

Captain WILLIAMS. The *Elcano*, *Monocacy*, *Palos*, *Pampanga*, *Quiros*, *Sacramento*, *Villalobos*, *Wilmington*. We are asking for a total of 639 men.

Mr. FRENCH. Does the *Asheville* come out?

Admiral COONTZ. She comes on another list and we will come to her later.

Mr. KELLEY. That does not make 14.

Captain WILLIAMS. They said 14 but some of those c there are 6 now training reserves; they would come out, should be 8 instead of 14.

Mr. KELLEY. Then the number of gunboats is eight?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. With a total of how many?

Captain WILLIAMS. Six hundred and thirty-nine men.

Mr. KELLEY. And how many are upon those boats now?

Captain WILLIAMS. Six hundred and fifty on board of them now.

Mr. KELLEY. That is for eight gunboats?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. I think you had better give the number on one and then we will have the record complete.

Captain WILLIAMS. We have on board the *Elcano*, 87; *Monocacy*, 48; *Palos*, 55; *Pampanga*, 30; *Quiros*, 47; *Sacramento*, 176; *Villalobos*, 56; *Wilmington*, 151.

Mr. KELLEY. That totals 650, does it?

Captain WILLIAMS. Yes, sir.

SPECIAL DUTY CRAFT.

Mr. KELLEY. Now the special duty craft. You have them as five patrol vessels in one place and in another place you call them special duty craft, including the *Mayflower* list.

Captain WILLIAMS. For the special duty craft we are asking 819 men, as follows: *Mayflower*, 160; *Sylph*, 32; *Osceola*, 34; *Nokomis*, 66; *Potomac*, 42; *Tadousac*, 39; *Vixen*, 72; *Scorpion*, 132.

Mr. KELLEY. You have an entirely new list.

Admiral COONTZ. It is on page 203, at the bottom.

Captain WILLIAMS. *Pensacola*, 110; *Napa*, 39; *Ontario*, 54; *Montcalm*, 39; a total of 819 men.

Mr. KELLEY. Let us see whether we can straighten these out. the *Mayflower* on that list?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. One hundred and fifty-nine men?

Admiral COONTZ. On board.

Mr. KELLEY. You are asking for 160?

Captain WILLIAMS. The *Mayflower* heads the list and we are asking for 160.

Mr. KELLEY. Is the *Vixen* there?

Captain WILLIAMS. The *Vixen* is here; yes, sir.

Mr. KELLEY. With how many men?

Captain WILLIAMS. The *Vixen*, 72 men.

Mr. KELLEY. The *Sylph*?

Captain WILLIAMS. Thirty-two men.

Mr. KELLEY. The *Nokomis*, 66 men; the *Isabel*—

Secretary DENBY (interposing). She is not on that list.

Captain WILLIAMS. She is not included in this special-duty craft.

Mr. KELLEY. We could get along much better if we had these lists alike.

Secretary DENBY. How many are on board the *Isabel*?

Commander LEAHY. She had on board 94 men.

Secretary DENBY. And we are asking 83.

Captain WILLIAMS. We now have on board these ships, the *Mayflower*, 159; *Sylph*, 32; *Osceola*, 36.

Admiral COONTZ. You want the *Nokomis* next?

Captain WILLIAMS. The *Nokomis*, 86.

Mr. KELLEY. Sixty-six, is it not?

Secretary DENBY. Sixty-six are asked for.

Captain WILLIAMS. The *Potomac*, 42.

Admiral COONTZ. You do not want the *Potomac*; you want the *Vixen*.

Captain WILLIAMS. She is on our list.

Mr. KELLEY. How many for the *Vixen*?

Captain WILLIAMS. The *Vixen*, 72. I have given what we are asking for and this is the number we now have on board: *Scorpion*, 138; *Pensacola*, 111; and *Napa*, 40.

Admiral COONTZ. Mr. Kelley does not want that.

Mr. KELLEY. How many for the *Isabel*? That is the only one left.

Captain WILLIAMS. Eighty-three.

Mr. KELLEY. Let us add to those the others that make the 12. What are the other seven?

Captain WILLIAMS. The *Mayflower* you have, the *Sylph* you have, the *Nokomis* you have, the *Tadousac* you have.

Mr. KELLEY. No.

Captain WILLIAMS. The *Vixen* you have.

Mr. KELLEY. What are the others?

Mr. OLIVER. What about the *Tadousac*? Where is she?

Admiral COONTZ. We had it at the same place; it is at the bottom of page 203 on your other list.

Mr. KELLEY. The *Osceola* is down here as a fleet tug, and she is at Haiti.

Admiral COONTZ. That is her job; she is a special duty craft and she is at Haiti. Several of them are tugs.

Mr. KELLEY. Is that a tug?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You see, we have given you quite a long list of tugs, 29.

Admiral COONTZ. We will come to those and be able to them out by name.

Mr. KELLEY. What about the *Osceola*?

Captain WILLIAMS. The next one is the *Potomac*.

Mr. KELLEY. Where does she come in?

Captain WILLIAMS. I think you will find her among the tugs.

Mr. KELLEY. Then that is another tug. Why do you not of the tugs together?

Admiral COONTZ. These are vessels that are station ships.

Mr. KELLEY. All right; what are the others?

Captain WILLIAMS. Have you the *Scorpion*?

Mr. KELLEY. No. Where is she?

Captain WILLIAMS. She is at Constantinople.

Mr. KELLEY. I mean on what list is she?

Admiral COONTZ. She is a special duty craft.

Mr. KELLEY. Let us see whether we can find the rest of the sels. What are the others? Is the *Scorpion* a tug?

Admiral COONTZ. No; she is a station ship at Constanti she has been carried as a special duty craft all the time. I require the *Osceola*, the *Potomac* and the *Tadousac*.

Mr. KELLEY. I have not the last one, the *Tadousac*; where is this list?

Commander HILL. You will find her on page 30-A.

Mr. KELLEY. That is a list of tugs, too?

Commander HILL. Yes.

Mr. KELLEY. What are the others?

Captain WILLIAMS. You have the *Vixen*, the *Scorpion* and the *Pensacola*.

Mr. KELLEY. The *Pensacola*?

Captain WILLIAMS. Yes.

Mr. KELLEY. Is that a tug?

Captain WILLIAMS. No; she is a cargo carrier.

Mr. KELLEY. She is a cargo ship?

Captain WILLIAMS. Yes.

Mr. KELLEY. At Guam?

Captain WILLIAMS. She is on special duty.

Mr. KELLEY. Then we can cut her off the cargo ship list.

Admiral COONTZ. Yes; if you put her on this list.

Mr. KELLEY. Is that all?

Captain WILLIAMS. The *Napa*.

Mr. KELLEY. Where does that come in?

Captain WILLIAMS. That is a tug.

Commander HILL. She is on page 30.

Captain WILLIAMS. The *Ontario*, another tug, and the *Montcalm* a tug. I have 12 on my list.

Mr. KELLEY. I have 13, Captain.

Captain WILLIAMS. May I call them off again: *Mayflower*, *Sylph*, *Osceola*, *Nokomis*, *Potomac*, *Tadousac*, *Vixen*, *Scorpion*, *Pensacola*, *Napa*, *Ontario*, *Montcalm*.

Mr. KELLEY. That covers all but the *Isabel*.

Captain WILLIAMS. You are going to get mixed up on this list if you include her.

Mr. KELLEY. Where does the *Isabel* belong?

Admiral COONTZ. Right there.

Commander LEAHY. We have not reached her yet.

Mr. KELLEY. Where is she?

Commander LEAHY. I will find her for you.

Mr. KELLEY. We have one more ship on here than the captain, and that is all.

Admiral COONTZ. Yes.

Mr. KELLEY. How many are asked for the *Osceola*?

Captain WILLIAMS. I am asking for 34.

Mr. KELLEY. The *Potomac*?

Captain WILLIAMS. Forty-two.

Mr. KELLEY. The *Scorpion*?

Captain WILLIAMS. One hundred and thirty-two.

Mr. KELLEY. The *Tadousac*?

Captain WILLIAMS. Thirty-nine.

Mr. KELLEY. The *Pensacola*?

Captain WILLIAMS. One hundred and ten.

Mr. KELLEY. The *Napa*?

Captain WILLIAMS. Thirty-nine.

Mr. KELLEY. The *Ontario*?

Captain WILLIAMS. Fifty-four.

Mr. KELLEY. The *Montcalm*?

Captain WILLIAMS. Thirty-nine.

Mr. KELLEY. How many does that make altogether?

Captain WILLIAMS. You have not called the *Mayflower* or *Sylph*.

Mr. KELLEY. I have those, and we will just foot that up. What is your total for the whole thing?

Captain WILLIAMS. Eight hundred and nineteen asked for; but that does not include the *Isabel*.

Mr. KELLEY. Now give us the number on board.

Admiral COONTZ. Nine hundred and seventy-five.

Secretary DENBY. Have you included the *Isabel*?

Admiral COONTZ. Yes, sir; with 39 men.

Secretary DENBY. But you do not include the *Isabel* in the 819?

Admiral COONTZ. No, sir. You ask for 39 on the *Isabel*, do you not?

Captain WILLIAMS. Eighty-three.

Secretary DENBY. That makes a total asked for of 902, which includes the *Isabel*.

Admiral COONTZ. And 975 on board, including the *Isabel*.

Mr. KELLEY. And how many asked for?

Secretary DENBY. Nine hundred and two.

Captain WILLIAMS. We have 958 on board.

Mr. KELLEY. They do not vary greatly from the number you ask for.

Capt. WILLIAMS. With the *Isabel* in that will make 902.

Mr. KELLEY. Nine hundred and two that you are asking for?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. The number of fleet tugs on the list submitted the other day was 29. Six of those have been transferred to the list of special duty craft, leaving 23 under the head of fleet tugs. This will reduce the number of men required for fleet tugs from 1,131

to 884 and increase the number of men required for special duty craft by 247, so far as the tugs are concerned, and then there are two other vessels added to the special duty craft, the *Scorpion* and the *Pensacola*, with a further additional number of men of 242, making the special duty craft total 902.

REPAIR SHIPS.

Now, the repair ships. Please give the names of the repair ships! Captain WILLIAMS. We are asking for the *Prometheus*, 430, and the *Vestal*, 430, a total of 860 men.

Mr. KELLEY. How many men have you on board of each now?

Captain WILLIAMS. They have on board the *Prometheus*, 370, the *Vestal*, 357, totalling 727.

STORE SHIPS.

Mr. KELLEY. Three store ships?

Captain WILLIAMS. We are asking for the *Arctic*, 188, the *B* 189 and the *Rappahannock*, 268, a total of 645. They have on board now the *Arctic*, 220, the *Bridge*, 203, and the *Rappahannock*, a total of 658.

FUEL SHIPS.

Mr. KELLEY. Four colliers?

Captain WILLIAMS. We are asking for the *Orion*, 164; the *A* 164; the *Jason*, 164; and the *Proteus*, 164; a total of 656.

Mr. KELLEY. How many have you on board of each of vessels?

Captain WILLIAMS. We have on the *Orion*, 209; the *Nereus*, 141; the *Jason*, 152; and the *Proteus*, 153; a total of 655.

Mr. KELLEY. Ten oilers?

Captain WILLIAMS. We are asking for the *Arethusa*, 78; 120; *Cuyama*, 120; *Kanawha*, 120; *Natchez*, 101; *Pecos*, 120; 91; *Ramapo*, 91; *Sapelo*, 91; a total of 1,023. They have on board: *Arethusa*, 78; *Brazos*, 112; *Cuyama*, 95; *Kanawha*, 118; *Pecos*, 107; *Patoka*, 99; *Ramapo*, 119; *Sapelo*, 10; *Trinity*, 101; a total of 946.

Admiral COONTZ. I think there should be a note made there that the *Sapelo* is about to go into commission or to replace something else.

AMMUNITION SHIPS.

Mr. KELLEY. The ammunition ships come next.

Captain WILLIAMS. We are asking for the ammunition ship *Nitro*, 177, and the ammunition ship *Pyro*, 177; total of 354.

Mr. KELLEY. Is that the number they have on board now?

Captain WILLIAMS. The *Nitro* now has on board 217 and the *Pyro* 212; total of 429.

CARGO SHIPS.

Mr. KELLEY. Now the cargo ships, eight of them. There will be seven, because you have taken the *Pensacola* out.

Captain WILLIAMS. *Kittery*, 87; *Newport News*, 113; *Bath*, 88; *Capella*, 91; *Sirius*, 91; *Vega*, 91; *Beaufort*, 72; a total of 633. They have on board: *Kittery*, 113; *Newport News*, 138; *Bath*, 112; *Capella*, 81; *Sirius*, 41; *Vega*, 81; *Beaufort*, 71; a total of 637.

TRANSPORTS.

Mr. KELLEY. Now the four transports?

Captain WILLIAMS. *Henderson*, 397; *Argonne*, 222; *Chaumont*, 214.

Mr. KELLEY. Those are the only three transports you have except the *Hancock*, which is a shore-station vessel?

Secretary DENBY. And the *Regulus*.

Mr. KELLEY. She is out of commission.

Secretary DENBY. She is just coming in.

Mr. KELLEY. The three transports total how much?

Captain WILLIAMS. Eight hundred and thirty-three.

We have on board the *Henderson*, 401; *Argonne*, 211; *Chaumont*, 240; a total of 852.

Secretary DENBY. The *Regulus* is not out of commission; she is just coming in.

Mr. KELLEY. When she comes in she will take the place of one of these?

AIRCRAFT CARRIERS AND TENDERS.

Aircraft carrier *Langley*?

Captain WILLIAMS. We are asking for the aircraft carrier *Langley*, 339.

Mr. KELLEY. How many has she on board now?

Captain WILLIAMS. Two hundred and sixteen.

Mr. KELLEY. For the aircraft tender *Wright*, how many are you asking?

Captain WILLIAMS. We are asking for the two aircraft tenders *Aroostook*, 250, and the *Wright*, 286; a total of 536. They have on board now, the *Wright*, 390, and the *Aroostook*, 240; total of 630.

Mr. KELLEY. These two you have just named, the *Aroostook* and the *Shawmut*, will be mine layers?

Admiral COONTZ. The aircraft tenders are the *Aroostook* and the *Wright*. The aircraft carrier is the *Langley*. They are entirely separate things.

Mr. KELLEY. You said the other day that the *Aroostook* was with the Pacific Fleet and was to be replaced as an aircraft tender by the *Langley* and become a mine layer.

Admiral COONTZ. If I said so I will stand by it; I do not remember. I know that one vessel is to relieve the *Baltimore*, which goes out of commission.

Mr. KELLEY. That gives you one aircraft carrier, the *Langley*, and one aircraft tender, the *Wright*, and two mine layers?

Admiral COONTZ. Yes, sir; the *Baltimore* and *Shawmut*.

Mr. KELLEY. It figures out about the same.

Captain WILLIAMS. We are asking for one mine layer with 369 men—*Shawmut*.

MINE SWEEPERS.

Mr. KELLEY. Ten mine sweepers; have you a list of those? Those are tugs again?

Captain WILLIAMS. No, sir; they are mine sweepers.

Captain WILLIAMS. Ten sweepers, 54 men each, 540 men.

Mr. KELLEY. Those are tugs?

Admiral COONTZ. I think each one of those is a tug. We reduced those from 16 to 10.

Mr. KELLEY. They carry 540 men?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What else have you?

SHORE BASE SUBMARINE TENDERS.

Captain WILLIAMS. The shore-base submarine tenders, a item.

Mr. KELLEY. What do you want with shore base sub tenders?

Admiral COONTZ. If you want to go into that, I should like to for Captain Day.

Mr. KELLEY. Admiral, you have here an item calling for five base submarine tenders, requiring 2,003 men. This seems to be addition to the seven submarine tenders already requested in another place and requiring 1,882 men. This would make a total of 3 men to take care of submarines, both by means of shore-base tenders and tenders that go with the submarines to sea, and this is apparently in addition to any force that may be used in the navy yards for repair of submarines. Please explain this item.

Admiral COONTZ. The so-called shore-base submarine tenders located at the following points: At Coco Solo, Isthmus of Panama; Hampton Roads, San Pedro, Pearl Harbor, and New London. The number of men attached to these tenders is as follows: New London, 500; Hampton Roads, 254; Coco Solo, 409; San Pedro, 400; and Pearl Harbor, 400. There are no navy yards at New London or at Hampton Roads base, although there is a navy yard now at Norfolk. There is no navy yard at Coco Solo, and there is no navy yard at San Pedro, the nearest navy yard to San Pedro is at Mare Island, Calif. At Pearl Harbor there are no quarters ashore for the submarine men.

Mr. KELLEY. What do you mean by the submarine men-mechanics?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Civilians?

Admiral COONTZ. No, sir; not civilians. I mean naval people.

Mr. KELLEY. Enlisted men?

Admiral COONTZ. Yes, sir. If I am correct in my recollection there are a few civilian workmen at New London, none at Coco Solo, and a few at San Pedro.

Mr. KELLEY. How does that happen?

Admiral COONTZ. Because these enlisted men that we are talking about do the work and carry it on with, I think, very few exceptions.

Captain WILLIAMS. For a long time civilians were forbidden to go on board submarines.

Mr. KELLEY. That is true of any warship, without special permission.

Admiral COONTZ. The ideal arrangement would be to have enough tenders to take care of all of the first line submarines, but that is

impracticable on account of the expense involved both in the number of ships and the crews to man them. An expedient has been resorted to by establishing so-called shore-based submarine tenders at certain strategic points. These have the same facilities, so far as practicable, and the same organization as mobile tenders. For the purposes of administration they are considered as mobile tenders that have been stationed at those points and become fixed on shore. They have, as in the case of mobile tenders, living quarters, messing facilities, sick quarters, supplies of food, clothing, equipment, machine shops to repair the submarines, power plants to charge the batteries and air tanks, for the heating and lighting of the quarters, for the running of the machine shops, etc., storage for spare parts, etc.

Mr. KELLEY. Admiral, it will not be necessary to read that entire statement into the record.

Admiral COONTZ. I will ask the director of submarines, who is now on his way here, to further explain this matter. I will admit that this number seems excessive to me, but I believe that he can thoroughly explain it, because he is thoroughly familiar with the situation.

Mr. KELLEY. We have a big plant at New London, on which we spent millions of dollars.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Why should we have a tender hitched up alongside there?

Admiral COONTZ. The tender carries all the accounts, and attends the submarines when they are exercising in adjacent waters.

Mr. KELLEY. It seems to me that we spent six or seven million dollars on that plant.

Admiral COONTZ. I want the director to explain that fully to you.

Mr. KELLEY. It strikes me that this is a mistake.

Secretary DENBY. I am frank to say that I must be shown in regard to that. The only question is whether the number requested is excessive, or not.

Mr. KELLEY. Captain Day, there is an item here covering 2,003 men at five shore-based submarine tenders, and I want you to tell us about it.

Captain DAY. Yes, sir. The idea, if we could get them, would be to have mobile tenders for all submarines, but we have not, and, therefore, they are based on shore. The arrangement of our organization, as far as possible, is to have the people at the submarine bases to act as though they were attached to the mobile tender which is tied up there and spread out on shore.

Mr. KELLEY. How did they happen to do that?

Captain DAY. Because they have to have some place to eat and sleep.

NEW LONDON, CONN., SUBMARINE BASE.

(See p. 326.)

Mr. KELLEY. At New London you have a big plant costing six or seven million dollars.

Captain DAY. That was a war-time growth. They had big experimental plants there, including all sorts of things.

Mr. KELLEY. Who does know about them?

Captain DAY. All of that has been discontinued. It was a war-time activity which has ceased.

Mr. KELLEY. They have 570 men up there?

Captain DAY. Yes, sir.

Mr. KELLEY. That would be enough to man 20 or 30 su

Captain DAY. Yes, sir; it would be enough to man two

Mr. KELLEY. How many tenders are based up there?

Captain DAY. Just now there are approximately 15 based at New London.

Mr. KELLEY. Does it take 570 men to take care of 15 su

Captain DAY. It takes 600 men in a mobile tender to take them. It requires less men with a shore-based tender than mobile tender.

Mr. KELLEY. I know; but you have mobile tenders.

Captain DAY. No, sir.

Mr. KELLEY. You have made arrangements for seven, have only 61 submarines that are in operation.

Captain DAY. Sixty-one of the first line and 27 of the second part of them are up there, and they are in operation. The submarine base gives them shelter, food, medical attendance, electrical power for charging the batteries, compressed air, and that sort of thing.

Mr. KELLEY. Do they operate the submarines?

Captain DAY. No, sir; the submarines are operated by the crews.

Mr. KELLEY. What does the crew do when they come back in?

Captain DAY. They go to work and get ready to go out. The Diesel engine requires perpetual overhauling, and the care of minor repairs, but at these submarine bases they have gangs to do work that the crew can not do.

NUMBER OF MEN REQUIRED TO OPERATE AND REPAIR SUBMARINES.

Mr. KELLEY. You see what it is you are asking for. You are for 3,800 men to take care of these ships that require only 3,000 to operate them.

Captain DAY. Yes, sir.

Mr. KELLEY. There must be something wrong about that.

Captain DAY. No, sir; every nation in the world that has submarines does the same thing. If we had these shops with the tenders it would take half as many men again, roughly. The tender averages about 300 men.

Mr. KELLEY. You do not mean to say that it would take 600 to keep a submarine in repair?

Captain DAY. In repair and in operation; yes, sir.

Mr. KELLEY. I mean in repair alone.

Secretary DENBY. Plus the crew?

Captain DAY. No, sir; counting the crew.

Secretary DENBY. I am frank to say that these appear to be extraordinary figures to me. I realize, of course, that the submarine is the most extraordinary craft in the world, and that it requires a great deal of attention. How many submarines are based at New London?

Captain DAY. Fifteen.

Secretary DENBY. What is the number of men involved?

Captain DAY. There are eight boats with 21 men, four with 34 men, and three with 20 men.

Mr. DENBY. There are 364 men for 15 submarines based on board, and there are 500 men ashore?

Mr. DAY. Yes, sir. That is pretty nearly the same way the work. To take a mobile tender with 300 men, attending submarines—

Mr. DENBY (interposing). Where are the seven tenders?

Mr. DAY. They are with the mobile divisions, with submarines from their bases, or all except one.

Mr. DENBY. Then 2,000 men are to take care of the ships tied up?

Mr. DAY. No, sir; they are not tied up. They have no work, but they are operating. They are operating quite as hard as the mobile tenders.

Mr. DENBY. When the submarine is in port, the men sleep?

Mr. DAY. Yes, sir.

Mr. DENBY. And they mess ashore?

Mr. DAY. Yes, sir.

Mr. DENBY. And their messing and barracks are cared for on shore?

Mr. DAY. Yes, sir.

Mr. DENBY. And these repairs—

Mr. DAY (interposing). Are done by the submarine crew, but they can not do, the heavy work, is done by the people on shore, as the mobile tender does. They do the heavy work that the submarine crew can not do.

Mr. DENBY. I am trying to get at the number. Of course, we have nothing but the shore base people to help out with.

Mr. DAY. At New London we have nothing but the shore base, plus one Eagle boat and one old harbor tug.

Mr. DENBY. How are the batteries charged—by the Eagle

Mr. DAY. No, sir; by the power plant at the shore station. The Eagle boat does not begin to have power enough to charge one of the batteries. It takes a 600 kilowatt set.

Mr. DENBY. Then you have a power plant ashore?

Mr. DAY. Yes, sir. It is practically the plant of a submarine tender moved over on the base. It is a power plant.

Mr. DENBY. What kind of a plant is it?

Mr. DAY. They have three oil-burning boilers which run the generator and air compressor. They have a big motor generator and a big air compressor. The principal thing that plant does is charge the batteries and supply compressed air for the tanks. The boat did that herself, they would use their oil up. Of course, they must do it while at sea, but it is not economical to run those engines for that kind of service. Of course, when the submarine is at sea she must charge her own batteries.

Mr. DENBY. Do you happen to remember the number of men engaged in the various activities there?

Mr. DAY. Yes, sir; some of them.

Mr. DENBY. What number of men are required for the shore or for the mechanical part of it?

Mr. DAY. I will have to telephone for that.

Secretary DENBY. There is an extraordinary disparity between the number of men required in this service and the number required any other branch of the service.

Captain DAY. We have worked out the difference between mobile tender and the shore base. On the tender afloat 49 men required for each submarine, and this average is 45.

Mr. KELLEY. There must be something wrong about those figures showing 49 men on a tender for each submarine. The officers told yesterday that they carried one around the world without being up anywhere.

Captain DAY. They can run a month.

Mr. KELLEY. They were hardly ever out of commission. To you come in and tell us that more men are needed to keep them in repair than are required to operate them every day in the year.

Secretary DENBY. Of course the station must be operated if it is to be kept in running condition.

Mr. KELLEY. There must be something wrong somewhere.

Captain DAY. People can not live on those craft indefinitely; can live there while they are running; they can live there a month; but at the end of that time they must have some place to eat and sleep.

Mr. KELLEY. I am not finding fault with that, but I am finding fault with the number of men apparently necessary to keep in ships that do not get out of repair very much.

Captain DAY. You have to have men to take care of the submarines and to take care of the tender. Take the *Canopus*; she has 18 men, and she tends eight submarines.

Mr. KELLEY. It looks as though you are planning to be on them all the time.

Captain DAY. They not only keep up the repairs on the submarines, but they have to run their own ships; it takes a crew to run one of the ships.

Mr. KELLEY. I know it does; but either you were wrong yesterday or wrong to-day; I do not know which.

Captain DAY. No, sir; I am sorry my stories do not seem to agree.

Mr. KELLEY. My statement yesterday was that it was my opinion that these ships needed a great deal of repairing and that it took up a great deal of the time; you said that was not so, but that they were running nearly all the while, and now you come in with a statement that it takes 48 men to run one—was that the number?

Captain DAY. Forty-eight or forty-nine.

Mr. KELLEY. All the year around to repair every submarine in the Navy.

Captain DAY. No; not only to repair them, but to furnish living quarters. For instance, they will go out for a week; at the end of that time they will come back, and it will take three days to overhaul them, and we must have men there to do that.

Mr. KELLEY. They go out a week, and then they are laid up a week!

Captain DAY. Laid up three or four days; they are tied up.

Mr. KELLEY. For repairs?

Captain DAY. For overhauling.

Mr. KELLEY. That does not tally with what you said yesterday about their being in shape to run practically all the time.

Captain DAY. We will take it the other way; they run for a month, and then they are laid up for such repairs as are necessary, and we must have the men there to make the repairs.

Mr. KELLEY. I think you are proving conclusively that there is no necessity whatever for crews for all of these ships.

Captain DAY. I am sorry you take it that way, sir. But there is no ship in the world that just keeps on running indefinitely. One of the best cases in the world was the transport I had during the war; she would run eight days full tilt, then come in for eight days, and everybody on the Hoboken docks came aboard to do things to the engines.

Mr. KELLEY. But you have another group on shore to do those things to her, larger than the one you have on the ship.

Captain DAY. We had three times as many to come aboard and do repairs there than we had in the engineers' force. Men were falling over each other in the engine room and thought they were doing a wonderful piece of work to keep her going.

Mr. KELLEY. You are asking for \$2,000,000. Why do you not hire civilians?

Captain DAY. It would cost more than it would to do it this way. That has been brought up and thrashed out time and again.

Mr. KELLEY. How many repairs do you have made at the navy yards?

Captain DAY. Practically nothing in the way of repairs at navy yards, because they do their own repairs.

Mr. KELLEY. Who do their own?

Captain DAY. The submarines and the base tenders.

Admiral COONTZ. I do not recall any submarine going to a navy yard for a long time.

Captain DAY. They have gone in for alterations, but for repairs practically nothing. The alterations were authorized as a result of experience during the war have not yet been finished, and for that purpose the submarines are in navy yards, but the repairs in the navy yards are very slight.

Mr. KELLEY. How long have you had charge of the submarines?

Captain DAY. Nine months, sir.

Mr. KELLEY. Do you have charge of their operation or just their repairs?

Captain DAY. I am aid to Admiral Coontz in operations.

Mr. KELLEY. Who had charge of it before you?

Captain DAY. Capt. G. W. Williams, U. S. N.

Mr. KELLEY. This captain?

Captain DAY. No; he is now the captain of the *New Mexico*.

Mr. KELLEY. How do you group these ships for operation?

Captain DAY. They are grouped by classes as far as the capacity of the tenders will permit. For instance, 8 H-boats are in one division in the Pacific and 8 K-boats in one division on this side.

Mr. KELLEY. I mean, how many do you send with the fleet?

Captain DAY. We send as many divisions as we can get out with the fleet. At the present moment we have the *Savannah* with 10 O-boats, the *Fulton* with 2 T-boats, and the *Bushnell* with 6 O-boats.

Mr. KELLEY. How many do you send along and what is your rule? In what way do you determine how many to send?

Captain DAY. So far we have been sending all we can.

Mr. KELLEY. And if you had 100 you would send them all?
 Captain DAY. No.

Mr. KELLEY. Well, you want 86.

Captain DAY. No, sir; they do not all go to the fleet; there are 11 of them at Manila, 10 at Hawaii, 14 at the Canal Zone.

Mr. KELLEY. You have seven tenders that take some of them to sea?

Captain DAY. Yes, sir.

Mr. KELLEY. So they must be with the fleet?

Captain DAY. They should be with the fleet. Of the tenders two are now at Cavite; they took 10 boats out and the tender is coming back.

Mr. KELLEY. Two tenders at Cavite?

Captain DAY. Yes; two tenders went out with 10 boats and one of them is coming back just as soon as she gets the submarine established there, and the other will have to stay. On this we have three tenders with the fleet, the *Savannah*, the *Bushnell*, the *Fulton*.

Mr. KELLEY. Can they keep up with the fleet?

Captain DAY. No, sir; they can make about 10 knots.

Mr. KELLEY. Then why do you say they are with the fleet?

Captain DAY. They are operating with the fleet; they are with the fleet at Guantanamo. The submarines can keep up with the fleet, but the tender either has to go ahead and meet them or follow on and pick them up.

Mr. KELLEY. And they use them in maneuvers, in protecting ships, and all that?

Captain DAY. Yes, sir.

Secretary DENBY. There is one thing that ought not to be overlooked in this connection, and that is that many of these men on the mobile tenders and shore-base tenders, are not strictly men at all.

Mr. KELLEY. They are housekeepers.

Secretary DENBY. But serve on the ships to operate them at sea.

Admiral COONTZ. They do all the cooking and all the baking.

Captain DAY. Cooking, baking, and cleaning; for instance, the engineer and repair gang at New London, as I recall it, has 192 men that is, to run the power plant at the base and do the repairs on the submarines.

Mr. KELLEY. Then the submarines are not there very much because the fleet is all down the other way?

Captain DAY. The fleet is now, but we have what is an experimental division up there, consisting of eight boats, for S-boats running engineering trials.

Mr. KELLEY. That was not very much of a place to build a submarine base, was it?

Captain DAY. Yes; it is a first-rate place.

Mr. KELLEY. With the cold weather in the winter?

Captain DAY. There is cold weather anywhere on this coast in winter.

Mr. KELLEY. Well, not so much as at New London. You have another base at Hampton, have you not?

tain DAY. A little one. I would rather be at New London in winter than at Hampton Roads. Then the beauty of the thing New London is that when they get out of the river they have enough water in which to operate, while at Hampton Roads have to go out 40 miles to get deep enough water.

. KELLEY. But if anything happened to one of them you would to go 1,000 miles or more to your base?

tain DAY. No; she would go to the nearest place.

. KELLEY. I should think the nearest place would be down here Hampton Roads.

tain DAY. It would depend on where the fleet happened to be. Fleet is north in the summer.

. KELLEY. And south in the winter.

tain DAY. Yes, sir. Another thing is that we have a submarine school at New London. The submarine service is different anything else; a man can not jump into a submarine and run; has to get some instruction and training first.

. KELLEY. You can not jump into any ship and run it.

tain DAY. No; but a man who knows surface craft can jump on one and can very soon operate, but a man can not jump into a submarine and do that.

. KELLEY. I doubt whether a man on a surface ship could into a battleship and run it.

tain DAY. But a man who knows a battleship can come nearer getting into a battleship and running it than a submarine, because a submarine is a different sort of business; while with a battleship a man is used to the same sort of business because he has been in it before. However, on a submarine they have to deal with storage batteries, air compressors, and Diesel engines, and a Diesel engine is something that nobody except the submarine service has very much to do with.

Secretary DENBY. Nobody seems to want to have much to do with the submarine.

tain DAY. I am sorry to say they do not want to have much to do with it.

. KELLEY. Have you something further to say about these men for the shore submarine base at New London?

DISTRIBUTION OF PERSONNEL AT NEW LONDON BASE.

tain DAY. You asked about what the men at New London did, and have the details as to that station. And, by the way, they have brought down from 2,700 to 500.

. KELLEY. What is the use of talking about that, because that is during the war.

tain DAY. Power-plant operation, 20 men. That is a big power plant, with four boilers, air compressors, generators, etc.; machine shop, 25 men; submarine repair force, 10 men; boat repair party, 6 men; coppersmith and ship fitter shop, 21 men; foundry, 4 men; gun shop, 2 men; carpenter shop, 9 men; engineers' office, 3 men; rigging overhaul shop, 18 men; electrical shop, 7 men; radio shop, 1 man; 35-foot motor boats, 28 men; 50-foot motor sailers, 10 men;

40-foot motor sailors, 8 men; blacksmith shop, 3 men; garage force, 6 men; chauffeurs, 10 men.

Mr. KELLEY. How many?

Captain DAY. One for each truck and one for each passenger. We could spare 2 men of that number out of the 500; optical men; gyro compass shop, 2 men; torpedo-repair force, 18 men; have something like 300 torpedoes to keep in condition; as office of day on deck, 5 men; sail locker, 3 men; signal station. Another 5 men can be spared.

Secretary DENBY. Do you mean spared from the 500?

Captain DAY. Yes; we have spared 7 so far; mess hall, 40 that is, taking care of the messes of the submarine crews; marine plant; 1 cobbler, 2 tailors, 3 barbers.

Mr. KELLEY. Do you furnish a barber for the boys up there?

Captain DAY. Yes; but they pay for their haircuts and this gives them a chance to get them. Brig, 7 men; night patrol—

Mr. KELLEY (interposing). That is pretty elaborate, is it furnishing of barbers?

Captain DAY. It is done on every ship in the service, sir. 8 at main gate, 4 men; wardroom mess, 36 men; cabin mess, 4 commissary store, 6 men; canteen, 2 men; payrolls, etc., 7 men; supply department—that is, yeomen, storekeepers, gunner's mate, 26 men; morale department, 2 petty officers; printing shop, 4 and personnel officers, 5 men.

Secretary DENBY. What does the print shop do?

Captain DAY. It does the printing for the station, for the work, and such work as they have to do for the boats and the itself. It is all necessary work and that was taken up with Committee on Printing and allowed.

Mr. KELLEY. They took your judgment about that, I presume.

Captain DAY. Yes, sir. Yeomen for the submarine at 4 men each. Then for the school, 26 men under instruction to submarines.

Mr. KELLEY. Twenty-six men undergoing instruction?

Captain DAY. Yes.

Mr. KELLEY. That is about half enough for one ship!

Captain DAY. Yes; but these men are studying electrical engineering, 5 in submarine torpedoes, 9 in engineering, and 7 in laboratory upkeep.

Mr. KELLEY. Admiral, do you remember about the New London? Is this not quite a white elephant?

Admiral COONTZ. I will be perfectly frank and say I have seen it but once; I have never gotten the opportunity to go to Solo and I have not visited the one at Hampton Roads nor the Hawaiian Islands. I have not been in the South for about 12 years and I simply have not had time to look at them. I have been out of town but twice, in how many months, and have not had the chance. I go over the plant; I would like to have everybody and I think Captain Day would, too; and if it were with it we would like to find it out and re-

Mr. KELLEY. This plant costs \$3,461,942.44. Give us the distribution of the submarines, Captain, as planned for next year.
 Captain DAY. Manila, 10 S-boats; Hawaii, 19 R-boats; San Pedro old boats of the H and L class.

SAN PEDRO SUBMARINE BASE.

Mr. KELLEY. We have no submarine base at San Pedro, have we?
 Captain DAY. Yes, sir.

Mr. KELLEY. But it is one we do not own.

Captain DAY. Yes.

Admiral COONTZ. It is a free base.

Secretary DENBY. Did we do much building there?

Captain DAY. No; it is an adaptation of what was there on the pier; they had a great big freight shed and a big two-story building the end of the pier.

Secretary DENBY. And it did not cost very much to convert it?

Captain DAY. Not much.

Secretary DENBY. But we do not own it?

Captain DAY. No, sir.

Mr. KELLEY. How much have you spent at San Pedro, Mr. Reed?

Mr. REED. \$190,000 for improvements.

Mr. KELLEY. How did we get in there?

Admiral COONTZ. We got in there unquestionably during the war.

Mr. KELLEY. It is your intention to keep that up this coming year?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Why do you not go down to the other place where there are shops?

Admiral COONTZ. The one particular reason is that when you get inside of San Pedro you can dive into deep water inside of 20 or 30 minutes, while at San Diego you know the number of miles you have to go to get out to deep water, so that San Pedro means a great saving in time and everything else. It has been gone into by a number of boards and was gone into by the House and Senate committees a year ago, and they unanimously reported in favor of keeping it at San Pedro.

Mr. KELLEY. Have you an option on the land?

Admiral COONTZ. We either have an option on the land or they are paying a large amount of land for \$1.

Mr. KELLEY. Is it a steep and rocky shore there?

Admiral COONTZ. A part of it is on the beach level and the rest is as high as this room and then there is a level place.

Mr. KELLEY. You will have to grade it?

Admiral COONTZ. No, sir; we will not have to any grading that I know of.

Mr. KELLEY. There is no harbor there?

Admiral COONTZ. You are inside of the breakwater.

Mr. KELLEY. But it is an artificial harbor?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. I remember somebody's report to the effect that in the long run we would have to move away from there.

Admiral COONTZ. That might be said of New York City, the thing.

Mr. KELLEY. Well, New York City is pretty well fortified, is it not?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Do you intend to fortify this place?

Admiral COONTZ. I imagine the War Department does in time.

Mr. KELLEY. You are right out in the open there, and there is no protection for these little boats at all.

Captain DAY. We would not want anything better than to have somebody come in there and try to shoot us up.

Mr. KELLEY. I am only quoting what I remember of a naval officer's report.

Admiral COONTZ. It was considered a satisfactory naval station by the committees of the Senate and the House who went there last year.

Mr. KELLEY. Who was at the head of the board that made the first report?

Admiral COONTZ. The first report was the report of Admiral Helm.

Mr. KELLEY. The Helm report says that you can not stay there a time of war; that you would have to move out and go down to other place.

Admiral COONTZ. I would not dispute that without looking at the book.

Secretary DENBY. Do you recall it, Commander Hill?

Commander HILL. I do recall it, because I was with Admiral Helm at the time, and the Helm report on San Pedro mentions it as being the best available site for a submarine base.

Mr. KELLEY. In peace time?

Commander HILL. No; at any time.

Mr. KELLEY. It specifically states in just as plain English as can be written that in time of war you would have to move away from San Pedro and go to the other place.

Secretary DENBY. That might refer to the outer harbor.

Commander HILL. Only two battleships can lie behind the breakwater, but the submarine base is at the extreme inner end of the artificial harbor, and I do not know of any place that will ever be smoother in time of storm than that place.

Mr. KELLEY. You are going to keep 12 boats there?

Captain DAY. Yes, sir.

Mr. KELLEY. Where are the rest of them?

ALLOCATION OF SUBMARINES FOR 1923.

(See p. 323.)

Captain DAY. Six O and seven R boats are at Coco Solo.

Mr. KELLEY. Thirteen in all?

Captain DAY. Yes, sir. Eight K-boats at Hampton Roads, 3 N-boats, 2 R-boats, and 1 S-boat at New London for experimental work, and 11 S-boats as they come in from the Pacific.

Mr. KELLEY. Where?

Captain DAY. With the Pacific Fleet, with mobile tenders.

Mr. KELLEY. Fourteen with the fleet in the Pacific? They are boats are they?

Captain DAY. Yes; and 14 with the fleet in the Atlantic; also 3 T and 10 O boats in the Atlantic.

Mr. KELLEY. Where in the Atlantic?

Captain DAY. With the fleet.

Mr. KELLEY. Why did you not put them all with the fleet?

Captain DAY. They are all with the fleet except those at New London, Coco Solo, and Hampton Roads.

Mr. KELLEY. You said the Atlantic Fleet had 14 R-boats?

Captain DAY. Yes, sir; it will have.

Mr. KELLEY. And then you said 3 T and 10 O boats with the Atlantic Fleet?

Captain DAY. I should have said 14 S-boats.

Mr. KELLEY. Fourteen S-boats with the Pacific Fleet?

Captain DAY. Yes; and 14 S-boats with the Atlantic Fleet, plus 3 boats and 10 O-boats.

Mr. KELLEY. Did you say 14 S-boats in the Atlantic?

Captain DAY. Yes, sir.

Mr. KELLEY. And 3 T-boats and 10 O-boats?

Captain DAY. Yes, sir.

Mr. KELLEY. They are all with the fleet?

Captain DAY. Yes, sir; as soon as the S class are put in commission.

Mr. KELLEY. Of all these boats, you have only 42 with the fleet?

Captain DAY. Yes, sir.

Mr. KELLEY. And the rest of them are stationed at the points you have mentioned?

Captain DAY. Yes, sir; and at Manila and Hawaii.

Mr. KELLEY. What sort of a plant have we at Coco Solo?

Captain DAY. We have a very good plant at Coco Solo.

Mr. KELLEY. Did it cost as much as the plant at New London?

Captain DAY. No, sir; I do not know what it did cost, but it is not complete as the one at New London.

Mr. KELLEY. Have you as many men there as at New London?

Captain DAY. No. We are supposed to have 409 men at Coco Solo if we actually have 390.

Mr. KELLEY. About as half as many as at New London?

Captain DAY. A little more than half.

Mr. KELLEY. What do the boats at Hampton Roads do?

Captain DAY. They are training men for the S-boats as they come along; that is what they are used for now; they are kept in commission for coast patrol and for training, and are kept in commission with two-thirds of a crew.

Mr. KELLEY. Admiral, which of these various activities should be put up if some of them are to be discontinued.

Admiral COONTZ. If any of them are to be discontinued, of course, the fleet activities would be the last to be discontinued.

Mr. KELLEY. And there are 42 boats in that service?

Admiral COONTZ. Yes, sir.

Secretary DENBY. I think you ought to qualify that answer. 42 are needed with the fleet, naturally there must be auxiliaries in addition, so that for the fleet there would be a need for something in addition to the 42, but how much in addition is a different proposition.

Admiral COONTZ. I understood him to say that if we started to do away with some of the submarines, what would we keep, and of course, we would keep those with the fleet.

NEW LONDON SUBMARINE BASE.

(See p. 315.)

Mr. KELLEY. Admiral, the Captain says that the 14 to be kept at New London, the 4 N, 4 K, 4 L, 1 R, and 1 S boats, are for experimental purposes.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What does he mean by that?

Admiral COONTZ. He means that they are experimenting with every new device that comes along in the submarine line, in listening devices up.

Mr. KELLEY. Then there would be 14 that would not require personnel on them?

Admiral COONTZ. They are all two-thirds manned, I think.

Captain DAY. Yes, sir.

Admiral COONTZ. Every submarine we keep must be partially manned or else it will soon go to pot.

Mr. KELLEY. It gets right back to what I had in my mind yesterday, that this is such an experimental part of the Navy—you are always working on these engines, batteries, and everything else, trying to perfect them and make them more seaworthy and so that of necessity quite a large number of these boats are constantly out of commission and they are laid up temporarily.

Captain DAY. But each boat laid up must have men to see the batteries and engines are kept in order.

Mr. KELLEY. But if you have 175 men on shore doing nothing else, can they not do that? Why do you have to have a crew keep the batteries and everything in condition when you have expert mechanics on shore who are paid for the work of these improvements and repairs? Have you not a double there?

Captain DAY. No, sir.

Mr. MADDEN. After all, do you not take the mechanics who on shore and have them do this work?

Captain DAY. No, sir.

Mr. KELLEY. He has 500 men; half of them are mechanics, the other half are housekeepers, bookkeepers, and the usual things you use in running a place like that. But if there are 125 there all the time doing experimental work, why provide any personnel as long as you have so many on shore at that point? undoubtedly could take care of these little boats without them run down. That could be done, could it not?

Captain DAY. No, sir. These boats go to sea; they go out four days a week in carrying on their experimental work.

Mr. KELLEY. When they go to sea they take with them, do they not?

Captain DAY. No.

Mr. KELLEY. Yes, they do.

ain DAY. They are working on the boats that are in; they fted around from boat to boat, and they work on the power tself.

KELLEY. You use over 300 men on that little base?

NUMBER OF MEN FOR CARE AND REPAIR OF SUBMARINES.

ain DAY. No; 192 men to take care of the repairs on the boats e power plant at the station.

etary DENBY. How many did you say the power plant took?

ain DAY. The power plant takes 20.

etary DENBY. How many men who are purely mechanics and men have you to work on the boats?

KELLEY. There are no civilians?

etary DENBY. No.

KELLEY. What are the ratings of these men?

etary DENBY. Would you mind letting him answer my n?

KELLEY. I think that is the same question.

etary DENBY. What I am getting at is how many men are t the station for the purpose of taking care of and repairing ubmarines.

KELLEY. I think he said 192.

ain DAY. That was the total, but I am trying to separate ised for the shore plant.

KELLEY. Four or five men run the power house?

ain DAY. No; the powerhouse is charged with 20.

KELLEY. Does it take 20 men to run a little power house?

ain DAY. It is not a little power house but a big one.

KELLEY. For what do you use power?

ain DAY. For lighting, furnishing electricity to boats, and ing compressed air to boats.

KELLEY. But not when the boats are away.

ain DAY. The boats come in and charge at night.

etary DENBY. How many men are there in the service of the

The other men are in the service of the men. How many re actually serving the boats, mechanics, etc.?

CHAIRMAN. There are 20 running the plant; that makes 172.

KELLEY. You could not get 172 men on these boats.

ain DAY. Take 20 men off, that gives 172.

KELLEY. You have only 15 boats, some of them at sea?

ain DAY. Some of them all the time, practically.

KELLEY. The men ashore—

ain DAY. They are not loafing because the boats

etary DENBY. the mess attendants?

etary DENBY. the officers in charge?

etary DENBY. whose sole function ars necessary?

etary DENBY. is no such line of er work must be

Secretary DENBY. That still leaves 172 men whose sole function is to take care of these boats, make the repairs, and keep the condition. That is what I want to find out.

Captain DAY. Here is the way it is: Powerhouse, 20; machine 23; outside repair, 10; sheet-metal shop, 22; foundry, 4; pattern 4; carpenter shop, 12; optical shop, 4; engineer shop, 3; radio, 8; battery overhaul, 18; charging station, 2; officer, 4; yard craft, 8; boats, 9; boat repair, 2; and mess cooks, 9.

Secretary DENBY. I want to eliminate everybody except those who serve with the submarines.

Mr. KELLEY. There are 18 men attending to the batteries?

Captain DAY. Yes, sir.

Mr. KELLEY. Why not let the 18 men take care of the ships and batteries and close the thing down?

Captain DAY. If you want the rest of the ships to go to the

Mr. KELLEY. That is only 14 you have there. You do not have all the boats from Honolulu, Hampton Roads, and Manila, in the fleet up there, you do not take any of them?

Captain DAY. Other boats are frequently there.

Mr. KELLEY. You do not take the 14 boats a long distance from this point. You have 14 of the oldest boats; you have the rest worthless.

Secretary DENBY. They are all necessary for the upkeep.

Mr. KELLEY. Not on shore. Why not run the shore station same as the navy yards—hire the men and let them get their own cooking. This idea of keeping a big boarding house at that point is terribly expensive.

Secretary DENBY. You would lose money if you attempted to keep the men. I do not believe you could hire them.

Mr. KELLEY. That makes it very expensive at New London by reason of having the enlistment feature and the retiring station feeding, heating, lighting, and lodging, and that applies to every man waiting upon them, even the mess attendants. You have a great many mess attendants. You have more people waiting on the

Secretary DENBY. Let us look it over. I think the thing should be gone into carefully.

Mr. KELLEY. You say that these 14 would have only two-thirds on them. That would be about 20 and that would be 280. You have 190 mechanics.

Admiral COONTZ. The general rule is for two submarine boats ashore, one afloat. Of course, you know the percentage of the boats that were able to go at any one time.

Mr. KELLEY. Fifteen or 16.

Admiral COONTZ. A very low percentage.

Mr. KELLEY. Still you want a full complement for every boat in the Navy except twenty-odd and a two-thirds complement for the

Admiral COONTZ. What is the answer? The Secretary says that the fleet is made up of 30, 15 and 15. That is 30 out of 141. That is a big percentage.

Mr. KELLEY. They are the old original types?

Captain DAY. They are back from 1913, not the old originals.

Secretary DENBY. Of course, I can see it is very clear that one mechanic can not do everything. You have to have a number

because they have different specialties. With the most delicate mechanism like in the submarines you must have good men.

Mr. KELLEY. You have here at this point the least necessary work and the least desirable boats, with the greatest expense, and a school of 20 men.

Secretary DENBY. That is rather a different proposition. I was talking about the men, not the need of this particular station.

Mr. KELLEY. With these boats scattered all over this way it looks as though the New London proposition was not worth inquiring into.

Secretary DENBY. You mean as a whole?

Mr. KELLEY. Yes, sir.

Secretary DENBY. That is a different proposition.

Mr. KELLEY. I do not see why, in the first place, there should have been an investment of three or four million dollars. It looks like in order to keep the investment up it takes this big overhead.

Secretary DENBY. Suppose we did not have it, would you take the 14 boats and base them somewhere else? Is there any magic in New London?

Captain DAY. Not at all. I do not know where it would be.

Mr. KELLEY. You might send five to Manila and one or two to Honolulu?

Captain DAY. Manila and Honolulu are both filled up.

Secretary DENBY. Have we not an experimental station at Newport?

Captain DAY. A torpedo station; yes, sir. There is no place for the men to live if the submarines go there.

Mr. KELLEY. How about Hampton Roads?

Captain DAY. They might be able to take care of part of them there.

Mr. KELLEY. There is plenty of place for the men to live.

Captain DAY. Yes; there is plenty of room in the east camp.

Secretary DENBY. How about Coddington Point?

Mr. KELLEY. I am more interested in the general proposition that the whole testimony shows that a large number of submarines are suddenly laid out and you are asking for full crews on practically everything you have. I think you can get along with a smaller number of men and operate the same boat not quite so often, but have the crews transferred from one ship to another and lay a boat up for repairs. The boys have to rest half the time. If they go out for eight days or a week they have to lay up for a couple of weeks. They get deathly sick and can not stand it.

Secretary DENBY. I hope you will not take up that subject. The submarine crews are so trifling that it does not amount to anything, but their relative value is perfectly enormous; but you are talking now about concentrating the submarines, and that is another matter.

Mr. KELLEY. That is a matter of administration——

Secretary DENBY [interposing]. If I can strip New London?

Mr. KELLEY. Where you put these boats is a matter for you, not for Congress; that I would not know and would not presume to say.

Secretary DENBY. No; if Congress wants to abandon New London, is a different proposition.

Admiral COONTZ. Look at this end. Here are 10 of these boats at Manila and a lot at Pearl Harbor and some at Coco Solo and all

around. They are needed for strategic purposes. The question of the abandonment of New London is another matter, of course. Transferring some of them to some other point, that is a question that is coming up. That is one of the things that must be considered and is being considered.

Mr. KELLEY. Did you not lay up most of the submarines entirely during the war?

Admiral COONTZ. I did not have anything to do with that.

Captain DAY. No, sir; we did not.

Mr. KELLEY. You laid them up?

Captain DAY. No, sir; none was laid up.

Captain WILLIAMS. The submarines were on the other side.

Mr. KELLEY. These 2,000 should not be on the seagoing list?

Admiral COONTZ. It is immaterial whether you put them there.

Mr. KELLEY. These are shore men, shore people absolutely, not seagoing people?

Admiral COONTZ. I see no objection to putting them on the shore list.

Mr. KELLEY. That is where they belong.

Admiral COONTZ. As I say to you, there must have been some very good reason for putting them there and now there should be a reason for putting them back. I do not know whether they should go back.

Secretary DENBY. It really does not make any difference.

Mr. KELLEY. It is perfectly misleading to put 570 men on the list of men supposed to be at sea when they are running a plant at New London?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. That is not the fact about it.

Captain WILLIAMS. The station at New London is directly under the Bureau of Navigation and it has been investigated with greatest care. I am not certain that we have gotten it solved. I think Commander Leahy is one of the members of the last boat that investigated this subject as to the personnel up there and perhaps he may be able to add a personal touch to it, having seen this from the exact point of view that you do, Mr. Chairman, the point of the enormous number of men that we have on shore there. We investigated it and had a committee appointed.

Secretary DENBY. The point that we are now discussing is whether or not the shore base, submarine mechanics and others, should be included in the seagoing fleet personnel.

Captain WILLIAMS. I think that is immaterial.

Secretary DENBY. No; it is very material. We want to find out exactly what men we have to have on the boats. If you take the 2,000 off the seagoing list then you are going to reduce your seagoing list by that number. It is only a question of bookkeeping where they are carried, whether they are carried merely as attached to the Eagle boats, and therefore you would call them seagoing men obviously.

Mr. KELLEY. They are not seagoing men, no matter where they are paid.

Captain WILLIAMS. That seems fair.

Mr. KELLEY. I think they might be carried as a part of the shore complement?

Captain WILLIAMS. Yes, sir.

Secretary DENBY. They are just exactly as vital as the men who are in the guns.

Mr. KELLEY. Do you think that the mechanism is more delicate than the instruments on the battleships?

Captain DAY. Yes, sir; very much.

Secretary DENBY. They ought to be a trained personnel.

Mr. KELLEY. These men who work do not go out with the submarines?

Captain DAY. Yes, sir; they do; they are transferred back and forth.

Admiral COONTZ. Just as I do; somebody relieves me and I go to

Mr. KELLEY. We will shift them out of this list.

Secretary DENBY. I can not see any objection to that.

Captain DAY. No, sir.

Mr. KELLEY. What have we left?

SURVEY SHIPS.

Admiral COONTZ. The survey ships.

Captain WILLIAMS. The *Hannibal*; 146.

Mr. KELLEY. How many have you on the *Hannibal* now?

Captain WILLIAMS. One hundred and thirty-seven.

Mr. KELLEY. What does this ship do?

Admiral COONTZ. It makes surveys on the south coast of Cuba, and Honduras, and all along that coast. Those countries down there do not survey the waters. The most of the surveys of the earth have been made by the British and ourselves. It is a thing that goes on from year to year. We have reduced the surveying boats from three to one. We feel that this nucleus should be kept going if it is at all possible to continue it.

Mr. KELLEY. This comes under the Hydrographic Office?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. No other nation makes these surveys?

Admiral COONTZ. Yes, sir; the British make them.

Mr. KELLEY. In these same localities?

Admiral COONTZ. I think none at present. I believe the British make theirs in different parts of the world. This is on the way to Panama, and it is for that purpose.

Mr. KELLEY. What else is there left?

FLEET TUGS.

Admiral COONTZ. Twelve fleet tugs. Have you the names?

Captain WILLIAMS. Ten mine sweepers and two tugs.

Mr. KELLEY. Twelve mine sweepers; are those the ones you mean?

Admiral COONTZ. No, sir; 12 fleet towing vessels.

Mr. KELLEY. We had put down here 540 for the 10.

Captain LACKEY. Five hundred and twelve for the 2 tugs and 10 mine sweepers.

Mr. KELLEY. What are the names of the two tugs?

Captain LACKEY. The *Sonoma* and the *Piscataqua*.

Mr. KELLEY. The next item is the 29 fleet tugs reduced to 23 transfer of 6 from the fleet tugs to special-service craft. Suppose you give us the names of the 23?

Captain LACKEY. *Allegheny, Bay Spring, Challenge, Chemung, Iroquois, Kalmia, Keosauqua, Kewadin, Koka, Lykens, Mahop, Mohave, Patuxent, Patapsco, Piscataqua, Sagamore, Sciota, Sunnad, Tillamook, Umpqua, Undaunted.*

The above are in naval districts and the *Contocook* and *Schoon* are with fleet.

Mr. KELLEY. That means 884 men required for fleet tugs, as have made the memorandum here: 1,131 was the number you gave yesterday, and we took out 247 for transfers, leaving 884.

Admiral COONTZ. They carry from 39 to 54 men each. I suppose the average would be 45.

Mr. KELLEY. Somebody gave us those figures of 1,131.

Admiral COONTZ. All right, we will stand by them.

MINE SWEEPERS.

Mr. KELLEY. The next are the mine sweepers, there being 10 of them.

Captain WILLIAMS. We have already taken care of the 10 mine sweepers.

Mr. KELLEY. Did you put the names down?

Captain WILLIAMS. No, sir; I did not.

Mr. KELLEY. Suppose you name the 10 mine sweepers.

Captain WILLIAMS. The *Tanager, Curlew, Finch, Lark, Sea Gull, Penguin, Whippoorwill, Chewink*, and the *Mallard*.

Mr. KELLEY. With a complement of 540 men, or 54 apiece?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. We disposed of them awhile ago without giving their names.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Are there any more ships?

SHIPS MANNED FOR BUREAU OF FISHERIES.

Admiral COONTZ. Yes, sir; there are the ships of the Fish Commission, the *Albatross* and the *Fish Hawk*. Under the law we are required to man them, and they require 125 men.

Mr. KELLEY. How many for the *Albatross* and how many for the *Fish Hawk*?

Captain WILLIAMS. Eighty-one for the *Albatross* and 44 for the *Fish Hawk*, making a total of 125.

Mr. KELLEY. How many do they have at the present time?

Captain WILLIAMS. The *Fish Hawk* has 44 and the *Albatross* is out of commission.

Mr. KELLEY. What else have you?

RADIO REPAIR SHIP "GOLD STAR."

Admiral COONTZ. There is the auxiliary radio ship *Gold Star*, with 97 men.

Mr. KELLEY. I think you told about her service for the Alaska Radio Stations.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The *Gold Star* is a radio repair ship, with 97 men.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many men are on her now?

Captain WILLIAMS. Now going in commission.

TARGET REPAIR SHIPS.

Mr. KELLEY. Are there any others?

Admiral COONTZ. There are the two target repair ships noted on 202, the *Antares* and *Procyon*. They take the place of the *Lebanon* and *Nanshan*, which are old vessels. We got the *Nanshan* in the Spanish-American War, and the *Lebanon* was commissioned in 1885.

Mr. KELLEY. They carry the targets that are shot to pieces?

Admiral COONTZ. Yes, sir; they carry the target outfits; photographic outfits, etc.

Captain WILLIAMS. One hundred and eighty-two men are required for each of them.

Mr. KELLEY. How many are on each one now?

Captain WILLIAMS. On the *Antares* 26 and the *Procyon* 17.

Admiral COONTZ. Let me say that the other two ships are now in commission, and we will drop the number of men that are carried on the others. If this should be allowed, the full number will be 182.

Mr. KELLEY. Ninety-one on each one.

Admiral COONTZ. Yes, sir.

GUNBOATS—U. S. S. "ASHEVILLE."

Mr. KELLEY. Are there any others?

Admiral COONTZ. There is one vessel we have lost, the *Asheville*. This is one we have lost in the shuffle.

Mr. KELLEY. It is included in the gunboats. If you will take your list of gunboats, you will see that you have 769 men for nine gunboats. *Asheville* appears on that list with 150 men.

Admiral COONTZ. She does not appear on my list.

Mr. KELLEY. I have her here with 148 men. Is that the right complement?

Captain WILLIAMS. Yes, sir.

Admiral COONTZ. It has not been put down to-day.

Mr. KELLEY. You want nine little gunboats?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What else have you?

FLAGSHIP COMPLEMENTS.

DIVISION AND DUTIES OF.

Captain WILLIAMS. Flag complements, 1,100 men.

Mr. KELLEY. Tell us about the flag complements of 1,100 men.

Admiral COONTZ. They are used by the commanders in chief of the Atlantic Fleet and Pacific Fleet, the commander of the battleship

forces. Atlantic Fleet; the commander of the control forces; the commander of mine squadron 1; the commander of the destroyer squadron, Atlantic; the commander of the train, Atlantic; the commander of the Asiatic Fleet; the commander of the Yangtse Patrol; the commander of naval forces operating in European waters; the commander of submarine flotillas; commander of special service squadron, etc. Those are men that are carried around with the flag and the men are transferred when the flag is transferred. They are in charge of the records of the 70,000 men that we have afloat. They have been in being from time immemorial, and this is the manner that the commander in chief says that they need at the present

Mr. KELLEY. They are bookkeepers.

Admiral COONTZ. They are signalmen, radiomen, bookkeepers, and everything of that character.

Mr. KELLEY. How many additional men does the flagship have over and above the number it would have if it were not the flagship?

Admiral COONTZ. It is increased just exactly by this number.

Mr. KELLEY. Take one ship, and we will suppose that you are the admiral of a fleet: How many more men would you have than a captain would have?

Admiral COONTZ. If I were the big commander in chief, I would have 98 additional people altogether.

Mr. KELLEY. You would have that many more than a captain?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Are there 11 ships that require 100 extra men each on this account?

Admiral COONTZ. No, sir; the flagship of the commander in chief would carry 98 additional men. Some of them carry as low as 10 additional men. There are about 60 different people that have to carry these additional people around with them. The postmaster carries 98, and he is the officer who is commander in chief of the United States Fleet—the officer who must have everything ready and in good condition in case of war. If you can run business as big as ours at sea, you will see that if you are going to give your officer who represents you everything in that line, you need 98, and no more.

Mr. KELLEY (interposing). He has 100 clerks!

Admiral COONTZ. No, sir; he has radiomen, signalmen, and everything of that character.

Captain WILLIAMS. Take the commander in chief of the Atlantic Fleet, as an example. I suppose the largest number of these people would be extra signalmen for the ship. Every ship has a certain number of signalmen to perform the signal duty on the ship, but the commander in chief has his own signal which must be manned by special signalmen to transmit or receive signals to the entire fleet. Many of them are special quarters who stand watch with the staff, and keep track not only of the movement of the ship itself but of the manner in which the evolutions are performed.

Mr. KELLEY. Do they not have regular officers and men to run the ship? As I understand it, these men are over and above the number needed to run the ship.

Captain WILLIAMS. They are over and above the number needed to run the ships.

Mr. KELLEY. I thought you were saying something about people who helped run the ship.

Captain WILLIAMS. I said in addition to them.

Mr. KELLEY. Very well, go ahead.

Captain WILLIAMS. There are special clerks or yeomen, as we call them, who look after the correspondence and care for the paper work incident to the flagship, as distinguished from the ordinary paper work that is incident to the ordinary ship.

Mr. KELLEY. How many captains are on a flagship?

Captain WILLIAMS. Sometimes two and sometimes more.

Mr. KELLEY. There is an admiral?

Captain WILLIAMS. Yes, sir; there is a captain of the ship and there is the admiral's staff.

Mr. KELLEY. How many extra commanders does it take?

Captain WILLIAMS. There may be several.

Mr. KELLEY. How many extra lieutenant commanders?

Captain WILLIAMS. There will be the admiral's entire staff.

Mr. KELLEY. I realize that it is quite a job to run a whole fleet, but 1,100 men is a large number.

Captain WILLIAMS. When you carry that through the flagship of the division, the flagship of the squadron, the flagship of the force, you will see that it requires 1,100 men. The additional personnel required for the commander in chief of the North Atlantic Fleet is probably the maximum. Next to that would come the commander in chief of the Pacific Fleet, and each division commander would have a certain number of extra men. When he moves the flag, or when he takes his station on another ship, he carries those people with him, and the duties are then continuous instead of being interrupted.

Admiral COONTZ. I do not think the number is excessive. The officers that we depend on must be given the proper number of men to keep everything right.

Captain WILLIAMS. This is the price we pay for coordination between ships, as distinguished from one ship operating by itself. When we have fleets, we must pay this much in personnel to make the whole unit efficient.

Mr. KELLEY. Let us take a battleship fleet, or a battleship division: How many ships are there in a battleship division?

Admiral COONTZ. Four.

Mr. KELLEY. Is there an admiral in charge of those four ships?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. If there is a division of destroyers along, who is in charge of that?

Admiral COONTZ. There would be a division commander or a squadron commander.

Mr. KELLEY. Would he be an admiral?

Admiral COONTZ. No, sir; a captain. That would be in addition to his other duties.

Captain WILLIAMS. He would require a few additional men.

Mr. KELLEY. But he would not require many?

Captain WILLIAMS. Not many, but some.

Mr. KELLEY. The battleship division flagship would do practically all the bookkeeping for everybody connected with the division, and everything that went with it?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many officers will there be who will require extra men, as the fleet is organized now?

Admiral COONTZ. There would be not over two.

Mr. KELLEY. One for each ocean?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is the next largest number that a flag officer would require?

Admiral COONTZ. The number shades down to 62.

Mr. KELLEY. What is the next highest?

Admiral COONTZ. The commander in chief of the battle forces of the Atlantic Fleet.

Mr. KELLEY. What does he have under him?

Admiral COONTZ. He has charge of six battleships that are on Atlantic, of the scouting forces, and everything else. He has him all of the submarines, air forces, etc.

COMMANDER IN CHIEF OF ATLANTIC FLEET.

Mr. KELLEY. Let us start at the top. You will have to have a commander of the Atlantic Fleet?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Or a commander in chief, and he has to have about 100 extra men.

Admiral COONTZ. Ninety-eight.

Mr. KELLEY. Who would be the next officer?

Admiral COONTZ. The commander of the battleship forces of Atlantic Fleet.

Mr. KELLEY. The commander in chief has charge of all the in the Atlantic, whether they are together, or not?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Now, how many extra men does the commander of the Atlantic battleship forces have?

Admiral COONTZ. Sixty-two.

Mr. KELLEY. Who is under him that has to have a flag?

Admiral COONTZ. He will have the admirals of the two divisions.

Mr. KELLEY. You have six battleships in the Atlantic?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. They are divided into two divisions of three each!

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And an admiral is in charge of those three battleships, with the auxiliaries that go with them?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is he called?

DIVISION COMMANDER.

Admiral COONTZ. The division commander.

Mr. KELLEY. How many extra men does the division commander have?

Admiral COONTZ. The division commander has altogether 41.

Mr. KELLEY. Do you mean that each division commander or the two together?

Admiral COONTZ. Each one.

KELLEY. That would make 82 for the two divisions in the Pacific.

CHAIRMAN. He said one had 62 and the other 41.

MR. COONTZ. One has 62 and the other 41.

KELLEY. What causes that division? Are there more destroyers in one division than in the other?

MR. COONTZ. There is a division in the number of the forces. There are more than one division.

KELLEY. You have two divisions?

MR. COONTZ. Yes, sir.

KELLEY. If one of them gets 41 assistants, why should the other get 62?

MR. COONTZ. The senior commander of the whole business has the command. He is in command of a division and the other officer commands a division. The latter has 41 men.

KELLEY. Is there anybody under the division commander that is in charge?

MR. COONTZ. There are various destroyer squadrons.

KELLEY. Let us have them.

MR. COONTZ. Mine squadron No. 1—

COMMANDER OF MINE SQUADRONS.

KELLEY (interposing). We will not have any mine squadrons.

MR. COONTZ. The mine squadron commander has some of the people.

KELLEY. How many do you have in the Atlantic?

MR. COONTZ. One. The commander of the various destroyer squadrons in the Atlantic—

KELLEY (interposing). How many are there? You have only one division of destroyers in the Atlantic, have you not?

MR. COONTZ. There are nine squadrons now in the Atlantic.

KELLEY. You have nine squadrons with 19 ships? We are talking about next year now.

MR. COONTZ. There are 19 now, we will say.

KELLEY. How many squadrons would that number make?

MR. COONTZ. We have in commission now 278.

KELLEY. We are talking about next year. As I understand it, you will have only one division in the Atlantic, and you will have only one in the Pacific. You have one destroyer squadron in the Pacific?

MR. COONTZ. We would have one on the Atlantic coast.

KELLEY. You operate them in nines, do you not?

MR. COONTZ. There are three divisions of six each and a leader squadron.

KELLEY. The leader is the one that carries the flag?

MR. COONTZ. Yes, sir.

KELLEY. How many extra men does that officer carry?

MR. COONTZ. The commander of a squadron carries 14.

KELLEY. Do you mean the commander of a division?

MR. COONTZ. No, sir; the commander of a squadron.

KELLEY. I understood you to say that you have three squadrons of six each—

Admiral COONTZ (interposing). No, sir; three divisions of six make a squadron.

Mr. KELLEY. I do not know what is the technical language heretofore we have been speaking of a division as consisting ships, or 18 ships and a leader. As I understand it the 18 ship divided up into three squadrons of 6 each.

Admiral COONTZ. No, sir; a squadron is composed of 19 and a division is composed of 6.

Mr. KELLEY. Then we will use the term squadron when we of 19 ships. As I understand, the officer at the head of a des squadron has 14 men?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Does anybody under him have a flag?

Admiral COONTZ. No, sir.

COMMANDER OF CONTROL FORCES OF THE ATLANTIC FLEET.

Mr. KELLEY. That covers all the fleet in the Atlantic?

Admiral COONTZ. No, sir. We now come to the control of the Atlantic Fleet.

Mr. KELLEY. What do you mean by that?

Admiral COONTZ. The commander of the control force of the Atlantic Fleet has charge of every ship along the coast that is in commission or in part commission that is assigned to him for as, for instance, in the line of the operations being carried out at Guantanamo.

Mr. KELLEY. I thought the district commander had charge of that.

Admiral COONTZ. No, sir; he does not have charge of that.

Mr. KELLEY. What does he have to do with ships?

Admiral COONTZ. All that he would have to do would be in connection with the small craft, of which we have very few in number.

Mr. KELLEY. Why not let him handle the whole business, and multiplying these divisions?

Admiral COONTZ. The first difficulty about that would be objection to his having a ship to go around in, and the second was mileage.

Mr. KELLEY. He would have plenty of ships to go around in.

Admiral COONTZ. We have practically cut that down to one.

Mr. KELLEY. He would not require more than one.

Admiral COONTZ. We have been taking all of them away from them.

Mr. KELLEY. You have a commander for that portion of the fleet which is not in the navy yards?

Admiral COONTZ. A part of it is not in the navy yards.

Mr. KELLEY. What do you call that service?

Admiral COONTZ. The control forces.

Mr. KELLEY. Is there more than one in the Atlantic?

Admiral COONTZ. No, sir.

Mr. KELLEY. How many men does he have?

Admiral COONTZ. Fifty-seven.

Mr. KELLEY. Those ships are not?

Admiral COONTZ. A part of them are.

Mr. KELLEY. They are?

Admiral COONTZ. No, sir; they are scattered all the way along from Boston to Key West and New Orleans.

Mr. KELLEY. Where is this man's headquarters?

Admiral COONTZ. That man's headquarters is on board ship. At present he is on board the *Florida*. He is now engaged in mining operations at the Virgin Islands.

Mr. KELLEY. The *Florida* is not one of the ships in the Regular Navy squadron?

Admiral COONTZ. No, sir; but she will be, because she is one of the battleships we must keep.

Mr. KELLEY. You could not consolidate the control forces with the district headquarters?

Admiral COONTZ. No, sir; this is an absolute necessity.

Mr. KELLEY. How many districts do you have on the Atlantic coast?

Admiral COONTZ. Seven.

Mr. KELLEY. It seems to me that you could divide them up and do away with this service.

Admiral COONTZ. No, sir; we could not.

COMMANDER OF DESTROYER SQUADRON, ATLANTIC FLEET.

Mr. KELLEY. What else do you have?

Admiral COONTZ. We have the commander of the destroyer squadron of the Atlantic Fleet.

Mr. KELLEY. You will not need that next year?

Admiral COONTZ. Yes, sir; we will need him next year. He will have apparently nothing to watch but the 19 ships, but we will have to put those ships out of commission in Charleston, and there is a number at Philadelphia that he will have to look after.

Mr. KELLEY. He is the officer who has supervision of the laying up of the 157 ships?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. He would have to take off all the supplies and see that they were properly laid up?

Admiral COONTZ. Yes, sir; and it is a big job.

Mr. KELLEY. You will probably have that done before the 1st of July.

Admiral COONTZ. We hope to finish laying them up by the 15th of July.

Mr. KELLEY. Then, you would not need him next year?

Admiral COONTZ. We will probably need him with the scouting organization, and the scout cruisers are coming in.

Mr. KELLEY. How many extra helpers does he have?

Admiral COONTZ. He has 41.

Mr. KELLEY. When those ships are laid up, you surely would not need to have that officer?

Admiral COONTZ. Unquestionably we will. If we laid up the destroyers, this could be revised downward.

Mr. KELLEY. When you have only 19 in the Atlantic, and that is all you plan to keep in commission—

Admiral COONTZ (interposing). And 23 in reserve, making 42.

Mr. KELLEY. That would not be a job on which to employ 41 men. I think we could cut that out entirely.

FLAGSHIP SIGNAL FORCE.

Mr. KELLEY. How else is this made up?

Commander LEAHY. The flag signal force consists of 22 signal boys.

Mr. KELLEY. That is in addition to the regular number on the ship?

Commander LEAHY. This is the commander in chief's detail.

Mr. KELLEY. How many signal boys are there on a battleship ordinarily?

Commander LEAHY. On a ship other than a flagship there are 16.

Mr. KELLEY. And this would make 28 on a flagship?

Commander LEAHY. No; a flagship does not get that many.

Mr. KELLEY. We are talking about the extra men. How many extra?

Commander LEAHY. I can not give you any exact figures. I am giving you the make-up of that 98 as near as I can.

Mr. KELLEY. You say it is 16?

Commander LEAHY. Yes, sir.

Mr. KELLEY. Go ahead.

Commander LEAHY. Five signal quartermasters.

Mr. KELLEY. What are they?

Commander LEAHY. The men in charge of the signal watches; in other words, the supervisors of the signal boys on watch; there will be four signal boys on watch at a time.

Mr. KELLEY. And one boy to watch over them.

Commander LEAHY. A quartermaster in charge.

Mr. KELLEY. Why do you call him a quartermaster?

Commander LEAHY. His name has been changed within the last six months to signalman, and the boys are called seamen.

Mr. KELLEY. What else?

FLAGSHIP RADIO DETAIL.

Commander LEAHY. Then he has a detail of radio men for his battleship station.

Mr. KELLEY. How many of those?

Commander LEAHY. I think there are eight.

Mr. KELLEY. Extra radio men?

Commander LEAHY. Those are for the extra stations of the radio officer on the bridge.

Mr. KELLEY. Go ahead.

FLAGSHIP BARGE AND BARGE CREW.

Commander LEAHY. Then he has a barge. There are four barges and 16 in the boat crews.

Mr. KELLEY. There are four barges and 16 men altogether?

Commander LEAHY. Yes, sir.

Mr. KELLEY. That is used for going around among the different ships?

Commander LEAHY. Yes, sir; for the use also of his staff.

Mr. KELLEY. Go ahead.

FLAGSHIP YEOMEN.

Commander LEAHY. The yeomen come next.

Mr. KELLEY. They are the clerks?

Commander LEAHY. Yes, sir.

Mr. KELLEY. How many of those?

Commander LEAHY. I can not tell you how many offhand.

Captain WILLIAMS. Captain Day, how many did you have on the *Pennsylvania*?

Captain DAY. I should guess 30.

Commander LEAHY. How many did you have in the printing office?

Captain DAY. Four.

Mr. KELLEY. What else?

Commander LEAHY. I think you have them all if you will add them up.

Mr. KELLEY. That makes 104.

Commander LEAHY. I think the mess attendants and yeomen are little too high. This has been from memory, but I can give it to you officially. I think the yeomen business is also too high.

Mr. KELLEY. You have reduced this to 900, have you, Admiral?

ATLANTIC FLEET AIR SQUADRON.

Admiral COONTZ. Yes, sir. I have just one more thing which we added, mine sweepers on special duty. These are for training the squadrons in the Atlantic.

Mr. KELLEY. Where do you get those boats?

Admiral COONTZ. You do not find them on the list; they have been bought. I could not find them on the list.

Mr. KELLEY. Here are three at air stations and six at naval stations. Are they a part of them?

Admiral COONTZ. No.

Mr. KELLEY. Let us take the three at air stations.

Admiral COONTZ. They are the *Sandpiper*, *Teal*, and *Gannet*.

Mr. KELLEY. There are three at air stations and six at naval stations. I think you have covered them all.

Captain WILLIAMS. There are 26, all told, sir.

Mr. KELLEY. Who can tell us how you arrive at your number of 200?

SCOUTING SQUADRON—NUMBER OF MEN AND DUTIES OF.

Commander LEAHY. This is the organization of the Atlantic Fleet squadrons. The first group is the scouting squadron.

Mr. KELLEY. That sounds formidable.

Commander LEAHY. That consists of 105 men.

Mr. KELLEY. You want 1,100 men who are not connected with the plane carrier or airplane tenders?

Commander LEAHY. Yes, sir.

Mr. KELLEY. They are the men to fly the machines?

Commander LEAHY. Yes, sir.

Mr. KELLEY. And act as the pilots of the machines?

Commander LEAHY. Pilots and the upkeep.

Mr. KELLEY. Upkeep?

Commander LEAHY. Yes, sir.

Mr. KELLEY. What do you mean by upkeep?

Commander LEAHY. I mean the overhauling of the engines, the repairing of them, etc.

Mr. KELLEY. That is done on the battleships, is it?

Commander LEAHY. It is done either on shore, where these people are basing, or it is done alongside one of the tenders.

Mr. KELLEY. You have a lot of men on each one of those to do that.

Commander LEAHY. We have a lot of men on them, but they the ships.

Mr. KELLEY. A lot besides. Quite a number of men were added and now you are putting them in here again.

Commander LEAHY. I think there was a mistake in that. T allowances are made for the actual number of men necessary to the ships, and not the small details connected with the operation of the machines.

Mr. KELLEY. It is not a very small detail when you put on extra men.

Captain WILLIAMS. One of them carries 339 men and that is not an excessive number.

Mr. KELLEY. Just for running the ship?

Captain WILLIAMS. No, sir.

Mr. KELLEY. How large a ship is the *Langley*?

Commander HILL. Nineteen thousand three hundred and sixty tons.

Captain WILLIAMS. This is an attempt to develop a mobile av force, the 1,100 people.

Mr. KELLEY. If you have these on the ships you will not them on shore where you have these others.

Captain WILLIAMS. If you could get them all to sea you not need these, but this is a force of aviators that has been orga to go out to sea.

Mr. KELLEY. I approve of it thoroughly. If you can fly ships off the decks of your battleships, that is fine, but if you use 1,100 that you have been using at shore stations and put the ships, why do you have to make a special item of 1,100?

Captain WILLIAMS. We want to build up an aviation force.

Commander LEAHY. This scouting squadron is --

Mr. KELLEY (interposing). Let me ask you this first: How men are now in aviation?

Captain WILLIAMS. In addition to those, we have 2,500 and are asking for more.

Mr. KELLEY. There are 2,500 now on shore.

Captain WILLIAMS. Two thousand five hundred now; yes.

Mr. KELLEY. Flyers and others?

Captain WILLIAMS. Yes.

Mr. KELLEY. You are now asking for the same number and 1,100 more for the fleet.

Captain WILLIAMS. That is what we have at the present time.

Mr. KELLEY. You do not have them now, do you?

Captain WILLIAMS. Yes.

Mr. KELLEY. Have you 1,100 with the fleet now?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What ships are they on?

Commander LEAHY. I did not say they were on the shi

Mr. KELLEY. Well, Captain Williams says they are on the Let us have the disposition of the men who are in this item by

Commander LEAHY. In the fleet air detachment there are 632.

Mr. KELLEY. How many on the *Florida*?

Commander LEAHY. I have not that, sir. I have the total number.

Mr. KELLEY. You must know where they are or you would not have the total.

Commander LEAHY. I do not have it here, but I have it at the Navy Department.

Mr. KELLEY. How many are there?

Commander LEAHY. Six hundred and thirty-two.

Mr. KELLEY. At the present time?

Commander LEAHY. Yes, sir.

Mr. KELLEY. And you want to double it?

Commander LEAHY. The estimate asked for, which has been gone over and drawn up here, amounts to 1,100 men.

Mr. KELLEY. If you want to put 1,100 on the ships, why can you not take 500 from shore and put them on the ships?

Commander LEAHY. That is out of my province.

Mr. KELLEY. Why increase the number?

Commander LEAHY. That is for the Secretary and the General Board to decide.

Captain WILLIAMS. I think the question of how many aviators we want or what your policy in aviation is going to be is a question of policy for the department. They have asked not only for this 1,100 attachment, but for more.

Mr. KELLEY. One of the finest things in the world is the ability to shift. I think the policy is a good one, to transfer, as far as you can, aviators from the shore to the ships, because that is what naval aviation should be, but it does not mean that you should build up a great shore establishment and then build up a great sea establishment simultaneously, but you should change from one to the other. Secretary DENBY. A number of people think we can do without ships at all.

Mr. KELLEY. I am not one of that number: I think they are very valuable.

Secretary DENBY. I am not, either; and I think the number of ships—

Mr. KELLEY (interposing). I think it is a fine thing to have these ships on the battleships.

Secretary DENBY. But you can not leave the shore absolutely unprotected by airplanes.

Mr. KELLEY. If you have these 2,500 men training on shore and getting ready, why can you not, as soon as you get them trained, transfer them to the ships without increasing your establishment?

Secretary DENBY. You see, the ships are being gotten ready, and do not know exactly what the situation is.

Mr. KELLEY. Who does know?

Admiral COONTZ. Captain Moffett can tell you in 10 minutes.

Secretary DENBY. I am trying to answer in a clumsy way why we need an increased number. They are putting catapults on the ships, so that we can launch aircraft from them, and when they are ready the force must be increased. Everybody approves of the policy of using these airships on battleships as soon as they can be detached from the battleships and return.

Mr. KELLEY. Do you not think you could arrange to transfer these from the shore to the ships without increasing the number.

Secretary DENBY. You can obliterate the shore stations if you like, but then you would leave the shore absolutely unprotected.

Mr. KELLEY. I think that probably the protection of the shore is not so vital. This is a sea proposition, is it not?

Secretary DENBY. Not entirely. Every squadron that went out of New York Harbor during the war went out with airplanes all around it.

Mr. KELLEY. We have so many different departments guarding the shore that I had supposed this was a fleet proposition.

Captain WILLIAMS. It is a fleet proposition.

Secretary DENBY. It is not entirely a fleet proposition.

Captain WILLIAMS. You can not pick up so many airplanes and put them on your ships until you get the machines developed and everything ready to receive them. For a while during the summer they were with the North Atlantic Fleet and they developed certain things.

Mr. KELLEY. Your idea is to train the men to fly, of course, at the training stations on shore.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And then put them in the fleet?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You do not intend to build up a great protection ashore, do you?

Captain WILLIAMS. That is a different question.

Mr. KELLEY. I say, that is not your plan?

Captain WILLIAMS. That is not what we are asking for.

Mr. KELLEY. What you want is enough men to train, first, on shore, and then put them into the fleet.

Captain WILLIAMS. That is what we are talking about.

Mr. KELLEY. And I ask you why you want 1,100 additional for this year, since you are not going to pile them up on shore.

Captain WILLIAMS. Mr. Kelley, we are asking for 1,100 in this seagoing list, and we expect to fit out the *Langley*, and, perhaps some flying detachments on other ships, if that is the development takes place. We started on this thing, and we have six hundred odd, I think, working on this business now, and we are putting it as fast as developments make it possible. This is an aviation problem and a problem of the future policy of the use of airplanes at sea. 1,100 is the detachment we hope to be able to use in the aviation proposition this coming fiscal year. At the present time this thing has got to be more or less supported; that is to say, to have not only its specialists but other people to go with it.

I think some of them are operating from Key West, Guantanamo; at another time they went down on the *Guantanamo* and flew off the beach there, because, I think, they are not ready to fly off the ships yet; that is the impossibility.

It is an aviation problem, and these things are being developed, and will be ready when this fiscal year begins.

Let me tie it up with Admiral Moffett, who can get at it exactly.

Mr. KELLEY. Have you any more ships to take up?
Admiral COONTZ. No, sir.

ALLOCATION BASED ON 50,000 MEN AFLOAT AND 15,000 MEN ASHORE.

Mr. KELLEY. Now, Admiral, this is what I would like to have you and the Secretary do: I would like to have you take this list of ships that you have asked to have kept in commission and assume that we are going to give you 50,000 men for the fleet and 15,000 men for the shore, and assign to these 18 battleships such proportion of them as you believe they ought to have.

Secretary DENBY. Wait a minute; that is not possible.

Mr. KELLEY. Just a minute; and put 103 destroyers in full commission and 84 submarines in full commission. I want the list to contain those ships, 18 battleships, 103 destroyers, and 84 submarines, with the necessary tenders and other auxiliaries, oilers and tankers, to go with those, and then assign what you have left, as far as they will go, to the other ships on this list, striking off the list such as you feel you could not keep in commission with that number of men.

Admiral COONTZ. Yes, sir. What would be your advice as to the China station and the European station?

Mr. KELLEY. I will leave it entirely to the discretion of the department. The Congress, I feel quite sure, would want you to keep in commission the 18 battleships, at least 103 destroyers, we will say, and 84 submarines, and the necessary other things to go with those, and then if there was to be a shortage anywhere, we would want it to come below that point. We would like to have you make a statement for the record with those ships in and the others out, to whatever extent is necessary to man these ships that are fighting ships.

Secretary DENBY. That is, 50,000 afloat and 15,000 men ashore.

Mr. KELLEY. Yes. So we will be sure about it, we want the list to include the names of the ships and the number of men upon each and every ship of each grade right straight down, showing just where you would use the 50,000 men.

Secretary DENBY. You do not mean the number of men in each grade.

Mr. KELLEY. No. Take 50,000 men and apply them to the battleships, the destroyers, and the submarines as far as you think they ought to go, and then if you have to strike out anything, strike out the things below which are of least consequence to you, but not going beyond the 50,000 men with the fleet.

Secretary DENBY. Are we to consider the men traveling to and fro and the men who are not in the service and not available as in the 50,000? As you know, there is always a number of men who are not available for one reason or other, being sick or absent from duty for one reason or another.

Mr. MADDEN. Do you mean replacements?

Secretary DENBY. No; sick men, men in desertion, men who are on liberty, and all that sort of thing. You can not keep the men of the crews going all the time every day of the year, and you must make an allowance for a number of men who are not available, and we would like to have some figure at which you would want to place men of that character.

Mr. KELLEY. If you have 50,000 men available---

Secretary DENBY (interposing). If you want us to say what we will do with them in the Navy that is a different proposition.

Mr. KELLEY. I have suggested 50,000 men for the fleet and 15,000 men for the shore as the sum total to keep in commission the number of vessels I have mentioned, and I have suggested that if there is a shortage you strike out from the bottom and see what your judgment would be.

Secretary DENBY. In other words, you are just taking 65,000 men for the Navy over all and you ask us to see what we can do with them.

Mr. KELLEY. I did not quite say that.

Secretary DENBY. I mean make the best use of them.

Mr. KELLEY. I said to keep in commission 18 battleships, 103 destroyers, and 84 submarines, and then below that strike out until you get enough out, if you have to take any out, to get down to 50,000 men.

Secretary DENBY. I do not imagine that number of men, 65,000 constitutes the number available for service, because, as I have said, there is always a great number not available because of sickness, desertion, and other reasons.

Mr. MADDEN. But it would not be impossible to make an allocation of the 50,000 men.

Secretary DENBY. No; but it is impossible to use 50,000 men if 50,000 men are all you have for the complements of the ships. It is impossible, and you can not do it.

MONDAY, MARCH 13, 1922.

Mr. KELLEY. We have with us this morning again the Secretary of the Navy, Mr. Denby; the Assistant Secretary, Colonel Roosevelt; Admiral Coontz, Captain Williams, and other assistants.

I think we had pretty well finished the subject of the number of men afloat when you were here last Friday, and at the end I asked the Secretary to allocate 50,000 men afloat to the ships of the Navy including in that list 18 battleships, 103 destroyers, 84 submarines and the necessary auxiliary craft to make those effective fighting units, and then to supplement that with such other ships as could be kept in commission with the balance.

Secretary DENBY. While leaving 7 per cent for replacements, I have that list. Do you want it by ships or classifications?

Mr. KELLEY. I am very much indebted to you, Mr. Secretary, for this list. I hope that I did not make too much bother over Sunday for the officers.

Secretary DENBY. You can not make too much trouble for us.

Admiral COONTZ. We are glad to have done it, even if we worked until 10 o'clock last night.

Secretary DENBY. I should like to read into the record the which have been stricken from the list.

Mr. KELLEY. I see by this list you have furnished that you have the names, as well as the details, ship by ship.

Secretary DENBY. We have given the details ship by ship and the names are also given.

Mr. KELLEY. At this point, I think, it would be well to put into the record, Mr. Secretary, this complete table just as you have furnished it.

Secretary DENBY. I think it would be well if I inserted in the record at this point a statement later to be prepared.

Mr. KELLEY. Whichever appears to be the best place for it to appear in the record.

Secretary DENBY. I can send you down a statement to-day.

Mr. KELLEY. Very well. Please put into the record at this point the summary and also the details immediately following.

Secretary DENBY. Yes, sir.

Allocation of 50,000 men afloat to ships of the Navy (including 18 battleships, 103 destroyers, and 84 submarines, with full complement and auxiliary craft), balance of men to be distributed to such other ships required so far as possible.

SUMMARY.

	Personnel.	7 per cent replacements.
8 battleships, first line (95 per cent complement).....	21,221	1,485
cruisers, second line.....	1,805	126
light cruisers, first line.....	1,257	88
aircraft carrier, second line.....	339	24
mine layer, second line.....	356	25
103 destroyers, first line (90 per cent complement).....	10,506	735
light mine layers.....	760	54
4 submarines, first line.....	2,579	181
patrol vessels (station ships).....	292	20
destroyer tenders.....	2,759	194
submarine tenders.....	1,882	132
aircraft tender.....	286	20
repair ship.....	430	30
store ship.....	268	19
colliers.....	492	34
oilers.....	763	53
ammunition ships.....	354	25
transports.....	833	58
hospital ship.....	361	25
fleet towing vessels (2 tugs, 7 mine sweepers).....	408	29
mine sweepers (1 aircraft tender).....	258	18
target repair vessel.....	91	6
flag complements.....	600	42
fleet aviation.....	1,100	77
Total.....	50,000	3,500
8 battleships, first line:		
Delaware, Atlantic Fleet.....	1,116	78
North Dakota, Atlantic Fleet.....	1,116	78
Florida, Atlantic Fleet.....	1,116	78
Utah, European waters (flag).....	1,116	78
Wyoming, Atlantic Fleet.....	1,225	86
Arkansas, Atlantic Fleet.....	1,225	86
New York, Pacific Fleet.....	1,243	87
Texas, Pacific Fleet.....	1,243	87
Nevada, Pacific Fleet.....	1,127	79
Oklahoma, Pacific Fleet.....	1,127	79
Pennsylvania, Pacific Fleet.....	1,176	82
Arizona, Pacific Fleet.....	1,170	82
New Mexico, Pacific Fleet.....	1,208	85
Mississippi, Pacific Fleet.....	1,170	82
Idaho, Pacific Fleet.....	1,170	82
Tennessee, Pacific Fleet.....	1,203	84
California, Pacific Fleet.....	1,203	84
Maryland, assigned Pacific Fleet; now flag, Cincinnati, Atlantic.....	1,204	84
Increase by Colorado, West Virginia, or Washington, 1 year.....	63	4
battleships, second line:		
Illinois, loaned to State of New York, training Naval Militia.....		
Connecticut, to be replaced by armored cruiser Seattle if treaty is signed.....		
attle cruisers, first line: None. Two to be converted to aircraft carriers.		
cruisers, second line:		
Rochester, Atlantic Fleet, destroyers (flag), at Charleston, S. C.....	544	38
Huron, Atlantic Fleet (flagship).....		
Seattle, navy yard, Puget Sound, out commission (Seattle to replace Connecticut if treaty is signed).....	612	43
Pueblo, to replace Utah in European waters later.....		
Charleston, Pacific Fleet, destroyer flagship.....	649	45

Mr. KELLEY. Do you not think you could arrange to transfer these from the shore to the ships without increasing the number.

Secretary DENBY. You can obliterate the shore stations if you like, but then you would leave the shore absolutely unprotected.

Mr. KELLEY. I think that probably the protection of the shore is not so vital. This is a sea proposition, is it not?

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Captain WILLIAMS. Yes, sir.

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Captain WILLIAMS. That is a different question.

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Captain WILLIAMS. That is not what we are asking for.

Mr. KELLEY. What you want is enough men to train, first, on shore, and then put them into the fleet.

Captain WILLIAMS. That is what we are talking about.

Mr. KELLEY. And I ask you why you want 1,100 additional for this year, since you are not going to pile them up on shore.

Captain WILLIAMS. Mr. Kelley, we are asking for 1,100 men on this seagoing list, and we expect to fit out the *Langley*, and, perhaps, some flying detachments on other ships, if that is the development that takes place. We started on this thing, and we have six hundred and odd, I think, working on this business now, and we are putting them at sea as fast as developments make it possible. This is an aviation problem and a problem of the future policy of the use of airplanes at sea. This 1,100 is the detachment we hope to be able to use in the seagoing aviation proposition this coming fiscal year. At the present time this thing has got to be more or less supported; that is to say, it has to have not only its specialists but other people to go with it.

I think some of them are operating from Key West across to Guantanamo; at another time they went down on the ships to Guantanamo and flew off the beach there, because, I believe, they are not ready to fly off the ships yet; that is the important question in connection with this aviation problem, and these men are the men who are becoming aviators and will be ready when this development takes place.

Mr. KELLEY. Then if we take it up with Admiral Moffett, to see whether the ships are ready, we can get at it exactly.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Have you any more ships to take up?
Admiral COONTZ. No, sir.

ALLOCATION BASED ON 50,000 MEN AFLOAT AND 15,000 MEN ASHORE.

Mr. KELLEY. Now, Admiral, this is what I would like to have you and the Secretary do: I would like to have you take this list of ships that you have asked to have kept in commission and assume that we're going to give you 50,000 men for the fleet and 15,000 men for the shore, and assign to these 18 battleships such proportion of them as you believe they ought to have.

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Mr. KELLEY. Just a minute; and put 103 destroyers in full commission and 84 submarines in full commission. I want the list to contain those ships, 18 battleships, 103 destroyers, and 84 submarines, with the necessary tenders and other auxiliaries, oilers and tankers, to go with those, and then assign what you have left, as far as they will go, to the other ships on this list, striking off the list such as you feel you could not keep in commission with that number of men.

Admiral COONTZ. Yes, sir. What would be your advice as to the China station and the European station?

Mr. KELLEY. I will leave it entirely to the discretion of the department. The Congress, I feel quite sure, would want you to keep in commission the 18 battleships, at least 103 destroyers, we will say, and 84 submarines, and the necessary other things to go with those, and then if there was to be a shortage anywhere, we would want it to come below that point. We would like to have you make a statement for the record with those ships in and the others out, to whatever extent is necessary to man these ships that are fighting ships.

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Secretary DENBY. You do not mean the number of men in each grade.

Mr. KELLEY. No. Take 50,000 men and apply them to the battleships, the destroyers, and the submarines as far as you think they ought to go, and then if you have to strike out anything, strike out the things below which are of least consequence to you, but not going beyond the 50,000 men with the fleet.

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Mr. MADDEN. Do you mean replacements?

Secretary DENBY. No; sick men, men in desertion, men who are in liberty, and all that sort of thing. You can not keep the men of the crews going all the time every day of the year, and you must make an allowance for a number of men who are not available, and we would like to have some figure at which you would want to place men of that character.

Allocation of 50,000 men afloat to ships of the Navy (including 18 battleships, 12 cruisers, and 87 submarines, with full complement and auxiliary craft), balance to be distributed to such other ships required so far as possible.—Continued.

SUMMARY—Continued.

	Personnel.	Total.
3 light cruisers, first line:		
Omaha, commission when completed, May 31, 1922.....	419	
Two others when completed.....	818	
5 light cruisers, second line:		
Birmingham, special service squadron.....		
Denver, special service squadron.....		
Galveston, special service squadron.....		
Tacoma, special service squadron.....		
Cleveland, special service squadron.....		
1 aircraft carrier, second line:		
Langley (ex-Jupiter), being converted, navy yard, Norfolk; date completion, May 1, 1922; will be commissioned about Apr. 1, 1922.....	538	
3 mine layers, second line:		
Baltimore, Pacific Fleet, mine squad; 2 at Pearl Harbor to go out of commission when relieved by Aroostook.....		
Aroostook, Pacific Fleet, aircraft tender, goes to mine force when relieved by Langley.....		
Shawmut, Atlantic Fleet, mine squadron.....	356	
126 destroyers, first line:		
Distribution of 90 per cent complement destroyers		
With Atlantic Fleet.....	19	
With Pacific Fleet.....	57	
With Asiatic Fleet.....	19	
In European waters.....	8	
Total.....	103	10,506
Distribution of 50 per cent complement destroyers		
At Charleston.....	23	
Destroyers, second line: None.		
10 light mine layers:		
Murray, Atlantic Mine Squadron.....	95	
Israel, Atlantic Mine Squadron.....	95	
Maury, Atlantic Mine Squadron.....	95	
Mahan, Atlantic Mine Squadron.....	95	
Hart, Asiatic Mine Squadron.....	95	
Ingram, Pacific Mine Squadron.....	95	
Ludlow, Pacific Mine Squadron.....	95	
Burns, Pacific Mine Squadron.....	95	
Anthony, Pacific Mine Squadron.....	95	
Rizal, Asiatic Mine Squadron.....	95	
84 submarines, first line:		
D.C.F.....	442	
27 R.....	759	
18 S.....	1,292	
C.F.S.....	126	
27 submarines, second line:		
S.H.S.....		
S.K.S.....		
S.L.S.....		
S.N.S.....		
33 patrol vessels:		
Eagle 6, at Pearl Harbor, engaged in anti-submarine tactics.....		
Eagle 7, at Pearl Harbor, engaged in anti-submarine tactics.....		
Eagle 8, at Pearl Harbor, engaged in anti-submarine tactics.....		
Eagle 9, fifth naval district, training reservists.....		
Eagle 11, duty with submarines at San Pedro; personnel shown under shore establishment.....		
Eagle 12, training reservists, eleventh naval district.....		
Eagle 13, training reservists, third naval district.....		
Eagle 14, duty with submarines at Pearl Harbor; personnel shown under shore establishment.....		
Eagle 15, training reservists, third naval district.....		
Eagle 17, duty with submarines, Hampton Roads; personnel shown under shore establishment.....		
Eagle 19, training reservists, first naval district.....		
Eagle 21, on duty, quarantine, freight and passengers to Washington.....		
Eagle 23, training reservists, third naval district.....		
Eagle 25, training reservists, third naval district.....		
Eagle 29, training reservists, first naval district.....		
Eagle 31, duty submarine at Coco Solo; personnel shown under shore establishment.....		
Eagle 33, duty submarine, New London; personnel shown under shore establishment.....		

Allocation of 50,000 men afloat to ships of the Navy (including 18 battleships, 103 destroyers, and 84 submarines, with full complement and auxiliary craft), balance of men to be distributed to such other ships required so far as possible—Continued.

SUMMARY—Continued.

	Person- nel.	7 per cent replace- ments.
35 patrol vessels—Continued.		
Eagle 34, training reservists, eleventh naval district.....		
Eagle 35, training reservists, twelfth naval district.....		
Eagle 36, training reservists, eighth naval district.....		
Eagle 38, training reservists, thirteenth naval district.....		
Eagle 39, training reservists, seventh naval district.....		
Eagle 40, duty air station, Pearl Harbor.....		
Eagle 42, training reservists, first naval district.....		
Eagle 44, training reservists, third naval district.....		
Eagle 47, training reservists, twelfth naval district.....		
Eagle 48, training reservists, third naval district.....		
Eagle 51, training reservists, third naval district.....		
Eagle 52, training reservists, fourth naval district.....		
Eagle 54, training reservists, third naval district.....		
Eagle 55, training reservists, third naval district.....		
Eagle 56, training reservists, Washington, D. C.....		
Eagle 57, training reservists, thirteenth naval district.....		
Eagle 58, training reservists, Pearl Harbor.....		
Eagle 59, training reservists, third naval district.....		
SUMMARY OF EAGLES (PRESENT DETAIL).		
In commission (35):		
Training reservists.....	25	
Submarine duties.....	8	
Air station duty.....	1	
Ferry, Washington to Quantico.....	1	
Total.....	35	
13 patrol vessels, submarine chasers:		
Submarine chaser 57, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 63, St. Louis, training reservists.....		
Submarine chaser 61, St. Louis, training reservists.....		
Submarine chaser 69, St. Petersburg, training reservists.....		
Submarine chaser 102, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 103, New Haven, Conn., training reservists.....		
Submarine chaser 104, Tampa, Fla., training reservists.....		
Submarine chaser 143, New York, training reservists.....		
Submarine chaser 154, seventh naval district, cable watch, Key West.....		
Submarine chaser 159, eighth naval district, station duties, New Orleans, La.....		
Submarine chaser 185, Dahlgren, Va., proving ground duties.....		
Submarine chaser 191, eighth naval district, training reservists.....		
Submarine chaser 192, Indianhead, proving ground duties.....		
Submarine chaser 210, New York and Washington, training reservists.....		
Submarine chaser 214, Haiti, activities, marine brigade, Haiti.....		
Submarine chaser 223, Haiti, activities, marine brigade, Haiti.....		
Submarine chaser 224, third naval district, training reservists.....		
Submarine chaser 229, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 231, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 237, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 251, Indianhead, Md., out of commission.....		
Submarine chaser 253, Haiti, activities, marine brigade, Haiti.....		
Submarine chaser 271, Stamford, Conn., training reservists.....		
Submarine chaser 277, eleventh naval district, duty with reserve destroyer force.....		
Submarine chaser 278, eleventh naval district, duty with reserve destroyer force.....		
Submarine chaser 284, fifteenth naval district, submarine operations.....		
Submarine chaser 285, fifteenth naval district, seaplane tender.....		
Submarine chaser 287, fifteenth naval district, undergoing overhaul.....		
Submarine chaser 303, twelfth naval district, calibration compasses.....		
Submarine chaser 306, eleventh naval district, duties connection with Pacific Fleet.....		
Submarine chaser 326, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 328, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 330, ninth naval district, training reservists.....		
Submarine chaser 341, Guantanamo, ordered St. Thomas to replace submarine chaser 62.....		
Submarine chaser 408, first naval district, general district duties.....		
Submarine chaser 412, ninth naval district, training reservists.....		
Submarine chaser 419, ninth naval district, training reservists.....		
Submarine chaser 431, ninth naval district, ordered to third naval district for training reservists.....		
Submarine chaser 432, ninth naval district, at Cleveland, training reservists.....		
Submarine chaser 433, ninth naval district, ordered to third district, training reservists.....		

Allocation of 50,000 men afloat to ships of the Navy (including 18 battleships, destroyers, and 84 submarines, with full complement and auxiliary craft), balance to be distributed to such other ships required so far as possible—Continued.

SUMMARY—Continued.

		1	2
SUMMARY OF SUBCHASERS (PRESENT DETAIL)—continued.			
26 auxiliaries, mine sweepers—continued.			
Gannet, San Pedro, seaplane tender, Pacific.....		84	
Mallard, Guantanamo, mine squadron, Atlantic.....			
Sandpiper, Miami, air squadron, Atlantic.....			
Vireo, Guantanamo, train, Atlantic.....			
SUMMARY, MINE SWEEPERS (PRESENT DETAIL).			
Atlantic train.....	3		
Pacific train.....	5		
Atlantic Air Squadron.....	2		
Atlantic Mine Squadron.....	4		
Pacific Mine Squadron.....	4		
Asiatic mine detachment.....	2		
Pacific air tender.....	1		
Submarine salvage.....	1		
Alaska radio calibration.....	1		
Bureau of Ordnance experimental purposes.....	1		
Total.....	26		
6 auxiliaries, miscellaneous:			
Hannibal, survey ship; now at work, coast of Honduras.....			
General Alava, Asiatic Station, transport, Cavite to Olongapo.....			
Paducah, navy yard, Portsmouth; assigned ninth naval district for United States Naval Reserve Force.....			
Gold Star, fitting out at Philadelphia; Alaska radio repair ship, replaces Saturn.....			
Antares, target repair ship.....			
Procyon, target repair ship.....		91	
25 unclassified:			
Annapolis, loaned to State of Pennsylvania as nautical school ship.....			
Boston, receiving ship, San Francisco.....			
Cheyenne, training ship, United States Naval Reserve Force, fifth district, Baltimore.....			
Chicago, submarine shore-based tender at Pearl Harbor.....			
Coast B. S. No. 4 (ex-Iowa), target ship, radio-controlled.....			
Essex, ninth naval district, training United States Naval Reserve Force.....			
Gopher, ninth naval district, training United States Naval Reserve Force.....			
Hartford, receiving ship, Charleston, S. C., naval relic.....			
Hawk, ninth naval district, training United States Naval Reserve Force.....			
Kear-see, crane ship under conversion, navy yard, Philadelphia.....			
Nantucket, loaned to State of Massachusetts as nautical school ship.....			
Newport, loaned to State of New York as nautical school ship.....			
Old Constellation, station ship, Newport, naval relic.....			
Old Constitution, navy yard, Boston, naval relic.....			
Oregon, navy yard, Puget Sound, out of commission, naval relic.....			
Philadelphia, navy yard, Puget Sound, receiving ship.....			
Reina Mercedes, Naval Academy, station ship.....			
Southern, navy yard, Portsmouth, receiving ship.....			
Wilmette, ninth naval district, training United States Naval Reserve Force.....			
Wolverine, fourth naval district, training United States Naval Reserve Force.....			
Yantic, ninth naval district, training United States Naval Reserve Force.....			
Commodore, ninth naval district, hulk bedded in concrete, station ship for training reserves.....			
Sturgeon Bay, at Norfolk; out of commission; to be loaned to State of New York; to be transferred to Buffalo for New York Naval Militia.....			
Briard-cliff, at Staten Island; loaned status, New York; training Naval Militia.....			

SHIPS (INCLUDING 18 BATTLESHIPS, 103 DESTROYERS, 84 SUBMARINES, WITH FULL COMPLEMENT) WHICH ARE REQUIRED UPON 50,000 MEN FOR SEA DUTY.

BATTLESHIPS, FIRST LINE.

Mr. KELLEY. Admiral, you have put in the 18 battleships, 103 destroyers, 84 submarines, with full complement and auxiliary craft, and that is the number that you have asked for the battleships heretofore.

Admiral COONTZ. Yes, sir.

CRUISERS, SECOND LINE.

r. KELLEY. Three cruisers of the second line, 1,805 men, and is the exact number you have asked for the cruisers?

Imiral COONTZ. Except that we asked for five.

cretary DENBY. I think he meant the personnel?

Imiral COONTZ. No, the number of men asked for. We asked five and this accounts for three.

r. KELLEY. There were three cruisers in the original list?

Imiral COONTZ. I think there were five.

r. KELLEY. Are these three cruisers of the second line, the three red cruisers, *Huron*, *Pueblo*, and *Seattle*?

Imiral COONTZ. No, sir; they are the *Rochester*, *Seattle*, and *Wesston*.

r. KELLEY. And you have eliminated—

Imiral COONTZ (interposing). The *Pueblo* and *Huron*.

r. KELLEY. The number of men asked for the *Seattle*, *Charleston*, *Rochester* are the same as you asked for heretofore?

Imiral COONTZ. With the exception of the *Seattle*. We reduced to replace the *Connecticut* to 612 men.

r. KELLEY. You have stricken out the *Huron* and the *Pueblo*?

Imiral COONTZ. Yes, sir.

r. KELLEY. The five cruisers, *Birmingham*, *Cleveland*, *Denver*, *Wesston*, and *Tacoma* have you entirely eliminated those?

Imiral COONTZ. Entirely from the list.

LIGHT CRUISERS, FIRST LINE.

r. KELLEY. And the three light cruisers?

Imiral COONTZ. They remain the same as before.

r. KELLEY. With the same number of men on each?

Imiral COONTZ. Yes, sir; they are military fighting units.

r. KELLEY. The new ones?

Imiral COONTZ. Yes, sir.

AIRCRAFT CARRIER.

r. KELLEY. One aircraft carrier?

Imiral COONTZ. The *Langley* remains the same.

MINE LAYER, SECOND LINE—DESTROYERS, FIRST LINE.

r. KELLEY. And the one mine layer?

Imiral COONTZ. We leave out the one mine layer and retain the *Albatross*, with the same number of men.

r. KELLEY. The 103 destroyers with the 102 men on board of ?

Imiral COONTZ. They remain and the 23 destroyers in reserve are out.

r. KELLEY. The 10 light mine layers?

Imiral COONTZ. They are reduced by two.

r. KELLEY. You have kept the same complement that you had on before?

Imiral COONTZ. Yes, sir.

SUBMARINES, FIRST LINE.

Mr. KELLEY. Eighty-four submarines?

Admiral COONTZ. They are first-line submarines and are kept with the same number.

Mr. KELLEY. That will be about an average of 30 for each one.

Admiral COONTZ. And the 27 submarines, second line, are left out entirely.

PATROL VESSELS.

Mr. KELLEY. Besides, you reduce the number of patrol vessels how many?

Admiral COONTZ. The patrol vessels are left out in their entirety.

Mr. KELLEY. Special duty craft, is the *Mayflower* now in that list?

Admiral COONTZ. It is under the heading of patrol vessels, yachts; we followed your classification. Under patrol vessels, gunboats, all are omitted.

Mr. KELLEY. How many were there, 12?

Admiral COONTZ. We had nine.

Mr. KELLEY. Under which list is the *Mayflower*?

Admiral COONTZ. Yachts, on page 10.

Mr. KELLEY. We have not reached that yet?

Admiral COONTZ. No, sir.

Mr. KELLEY. The patrol vessels, gunboats, are left out entirely?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And the patrol vessels, yachts, except the *Mayflower* and *Scorpion*?

Admiral COONTZ. Yes, sir; we retain only two.

DESTROYER, SUBMARINE, AND AIRCRAFT TENDERS.

Mr. KELLEY. The six destroyer tenders?

Admiral COONTZ. Retained with the complements.

Mr. KELLEY. Seven submarine tenders?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. One aircraft tender?

Admiral COONTZ. Yes, sir.

REPAIR AND STORE SHIPS, COLLIER, OILERS, AND AMMUNITION SHIPS.

Mr. KELLEY. One repair ship?

Admiral COONTZ. One repair ship retained and one left out

Mr. KELLEY. With the same complement?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. One store ship?

Admiral COONTZ. Retained and two left out.

Mr. KELLEY. Are the three colliers the same?

Admiral COONTZ. One left out.

Mr. KELLEY. The seven oilers?

Admiral COONTZ. We have retained seven and three are left out.

Mr. KELLEY. The ammunition ships?

Admiral COONTZ. We retain both.

TRANSPORTS.

Mr. KELLEY. Three transports?

Admiral COONTZ. We retain three transports.

Mr. KELLEY. There were just three transports and you keep those?
Admiral COONTZ. Yes, sir.

HOSPITAL SHIPS.

Mr. KELLEY. One hospital ship?

Admiral COONTZ. We leave one out.

Mr. KELLEY. How could you leave out one hospital ship?

Admiral COONTZ. Simply because we had to. There is no question but that a hospital ship would go before a combatant vessel would go.

Mr. KELLEY. You would have this one in the Atlantic or Pacific?

Admiral COONTZ. In the Pacific.

Mr. KELLEY. And bring the boys to shore?

Admiral COONTZ. You would have to when you got an opportunity.

Mr. KELLEY. How many men on each of these hospital ships?

Admiral COONTZ. Three hundred and sixty-one on one and 348 on the other.

Mr. KELLEY. Which one do you leave the 361?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. That involves the question of 348 men?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You would put that hospital ship out of commission rather than find 348 men somewhere?

Admiral COONTZ. If it were a case of necessity.

TUGS, MINE SWEEPERS, ETC.

Mr. KELLEY. What was the next, 12 fleet-towing vessels reduced to 9, 2 tugs and 7 mine sweepers?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Those are really all tugs?

Admiral COONTZ. I believe they are.

Captain LACKEY. They were built for mine sweepers.

Mr. KELLEY. Fashioned after a tug?

Captain LACKEY. Yes, sir. If you saw the two together, you could not tell the difference.

Mr. KELLEY. You reduce the 10 mine sweepers to 5?

Commander HILL. Four for duty with mine squadron and one is an aircraft tender.

Mr. KELLEY. With the same unit complement for those?

Admiral COONTZ. The aircraft tender has a little less complement than the regular mine sweepers; the same as we have been talking of before.

Mr. KELLEY. The two target repair ships reduced to one?

Admiral COONTZ. Yes, sir.

FLAGSHIPS.

Mr. KELLEY. And the flag complement from 1,111 to 600?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The fleet tugs are left as they were?

Admiral COONTZ. Yes, sir. There are a few other craft which we have left out which should be enumerated.

Mr. KELLEY. Please put in at this point, Admiral, the enumeration of the vessels which you have left out from the list that we discussed on Friday.

Admiral COONTZ. By name?

Mr. KELLEY. Put them in the record by name; yes, sir.

Additional ships requested to be kept by Navy, complements of which are based 50,000 men for sea duty.

Battleships, first line, none left out.

Battleships, second line:

Illinois, loaned to State of New York, training Naval Militia.....

Connecticut, to be replaced by Seattle.....

Battle cruisers, first line, none.

Cruisers, second line:

Huron, flagship, Asiatic Fleet.....

Pueblo, to replace Utah in European waters later.....

Light cruisers, first line, none.

Light cruisers, second line:

Special-service squadron—

Birmingham.....

Denver.....

Galveston.....

Tacoma.....

Cleveland.....

Aircraft carriers, second line, none.

Mine layers, second line:

Baltimore, to be replaced.....

Aroostook.....

Destroyers, first line, none.

Destroyers, second line, none.

Destroyers, in reserve, 23.....

Light mine layers:

Hart.....

Rizal.....

Submarines, first line, none.

Submarines, second line:

8 H's.....

8 K's.....

8 L's.....

3 N's.....

Patrol vessels, Eagles, all training reservists in naval districts:

No. 6.....

No. 7.....

No. 8.....

No. 9.....

No. 11, submarine base.....

No. 12.....

No. 13.....

No. 14, submarine base.....

No. 15.....

No. 17, submarine base.....

No. 19.....

No. 23.....

No. 26.....

No. 27.....

No. 29.....

No. 31, submarine base.....

No. 33, submarine base.....

No. 34.....

No. 35.....

No. 36.....

No. 38.....

No. 39.....

No. 40, manned by Air Service personnel.....

No. 42.....

No. 44.....

No. 47.....

No. 48.....

No. 51.....

	Comple- ment.
les, all training reservists in naval districts—Continued.	10
.....	10
.....	10
.....	10
.....	10
.....	10
.....	10
.....	10
.....	10
marine chasers, all training reservists, midshipmen, etc.:	4
.....	3
.....	3
.....	3
.....	3
.....	4
.....	3
.....	3
.....	3
.....	8
.....	12
.....	3
.....	11
.....	3
.....	17
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.....	9
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.....	3
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.....	3
.....	3
.....	3
.....	3
.....	4
.....	17
.....	17
oats:	162
.....	46
.....	149
.....	46
.....	93
.....	30
.....	55
.....	55
..... patrol, Asheville.....	148
..... el.....	83
.....	72
.....	32
.....	66

	Complement.
ciliaries, mine sweepers—Continued.	
Guantanamo, mine squadron, Atlantic, Mallard.....	54
Miami, air squadron, Atlantic, Sandpiper.....	45
Guantanamo, train, Atlantic, Vireo.....	45
ciliaries, miscellaneous:	
Survey ship Hannibal.....	146
Asiatic station transport Cavite to Olongapo, General Alava.....	54
Navy yard, Portsmouth, assigned ninth district for U. S. Naval Reserve Force, Paducah. ¹	
Alaska radio repair ship, replaces Saturn, Gold Star.....	97
Target repair ship Antares.....	91
classified:	
Loaned State Pennsylvania as nautical school ship, Annapolis.....	
Receiving ship at San Francisco, Boston.....	160
Training ship, U. S. Naval Reserve Force, fifth district, Cheyenne.....	34
Submarine shore based tender at Pearl Harbor, Chicago.....	385
Target ship radio controlled, Coast B. S. No. 4.....	
Ninth naval district training, U. S. Naval Reserve Force, Essex.....	18
Ninth naval district training, U. S. Naval Reserve Force, Gopher.....	15
Receiving ship Charleston, S. C., Hartford.....	75
Ninth naval district training, U. S. Naval Reserve Force, Hawk.....	6
Crane ship under conversion, Philadelphia, Pa., Kearsarge.....	227
Loaned State Massachusetts as nautical school ship, Nantucket.....	
Loaned State New York as nautical school ship, Newport.....	
Station ship, Newport, naval relic, Old Constellation.....	17
Navy yard, Boston, naval relic, Old Constitution.....	5
Navy yard, Puget Sound, out of commission, naval relic, Oregon.....	
Navy yard, Puget Sound, receiving ship, Philadelphia.....	109
Naval Academy station ship, Reina Mercedes.....	91
Navy yard, Portsmouth, receiving ship, Southery.....	47
Ninth naval district, training U. S. Naval Reserve Force, Wilmette.....	25
Fourth naval district, training U. S. Naval Reserve Force, Wolverine.....	8
Ninth naval district, training U. S. Naval Reserve Force, Yantic.....	15
Ninth naval district, Hulk bedded in concrete, station ship, training reserves, Commodore.....	6
At Norfolk, out of commission, to be transferred Buffalo for New York Naval Militia, Sturgeon Bay.....	
At Staten Island, loaned status, New York training Naval Militia, Briarcliff.....	
Total.....	13, 227

fr. KELLEY. Please take the list as to the ones to be kept in commission.

BATTLESHIP, SECOND LINE, BATTLE CRUISERS, AND LIGHT CRUISERS.

Admiral COONTZ. The *Illinois*.

fr. KELLEY. She was not in your list?

Admiral COONTZ. She has been in the list all the time.

fr. KELLEY. How many men?

Captain WILLIAMS. Fifty men, a temporary complement.

Admiral COONTZ. The following have been left out: *Huron*, 791; *Pueblo*, 791; *Birmingham*, 300; *Denver*, 288; *Galveston*, 288; *Yoma*, 288; *Cleveland*, 288.

fr. KELLEY. Those are the five cruisers?

Admiral COONTZ. Yes, sir. *Aroostook*, 250; 23 destroyers in re-commission.

¹When the Paducah arrives at Duluth, she will share the complement of the Essex; the Paducah is the Essex 3. ((See the Essex.))

DESTROYERS, EAGLES, SUBMARINE CHASERS, AUXILIARIES, ETC.

Mr. KELLEY. How many on the destroyers?

Admiral COONTZ. Thirteen hundred and eleven. *Hart*, 99; *Risal*, 99; 27 submarines, second line, 430; 35 eagles, 350; 44 subchasers, approximately 215.

Wilmington, 162; *Palos*, 46; *Sacramento*, 149; *Monocacy*, 46; *Asheville*, 148; *Elcano*, 93; *Pampanga*, 30; *Quiros*, 55; *Villalobos*, 55; *Vixen*, 72; *Sylph*, 32; *Nokomis*, 66; *Isabel*, 83; *Prometheus*, 430; *Bridge*, 189; *Arctic*, 188; *Nereus*, 164; *Arethusa*, 78; *Trinity*, 91; *Sapelo*, 91; *Kittery*, 87; *Newport News*, 113; *Bath*, 88; *Capella*, 91; *Sirius*, 91; *Vega*, 91; *Regulus*, 91; *Beaufort*, 72; *Mercy*, 348; *Allegheny*, 30; *Bay Spring*, 24; *Challenge*, 14; *Chemung*, 20; *Iroquois*, 20; *Kalmia*, 30; *Keosauqua*, 39; *Kewaydin*, 30; *Koka*, 30; *Lykens*, 30; *Mahopac*, 30; *Mojave*, 20; *Montcalm*, 39; *Napa*, 39; *Ontario*, 54; *Osceola*, 34; *Patuxent*, 30; *Piscataqua*, 44; *Potomac*, 42; *Sagamore*, 20; *Sciota*, 20; *Sunnadin*, 39; *Taudusoc*, 39; *Tillamook*, 12; *Umpqua*, 30; *Undaunted*, 22; *Swallow*, 41; *Curlew*, 54; *Finch*, 54; *Bobolink*, 45; *Lark*, 54; *Teal*, 45; *Rail*, 45; *Falcon*, 54; *Bittern*, 54; *Chewink*, 54; *Cormorant*, 54; *Mallard*, 54; *Sandpiper*, 45; *Vireo*, 45; *Hannibal*, 146; *General Alava*, 54; *Paducah*, shares complement with *Essex*; *Gold Star*, 91; *Antares*, 91.

I will have to look up the *Antares*, and the *Annapolis* has no complement. A number of them are training reserves. There are about 30 of them training reserves.

SHIPS USED FOR TRAINING RESERVES.

Mr. KELLEY. What is the sum total of those 30 training reserves?

Admiral COONTZ. Twenty-five eagles, 17 submarine chasers, and 6 miscellaneous vessels. I think we would have to pull them out. The *Boston* is a receiving ship at San Francisco; the *Cheyenne* has 34; the *Chicago* is attached to a submarine base at Pearl Harbor; the complement of the ex-*Iowa* is combined with that of the *Ohio*, and both go out of commission; the *Essex* has 18; the *Gopher* has 15; the *Hartford* is a receiving ship; the *Hawk* has 6; the *Kearsarge* is not in commission; the *Nantucket* has no Navy personnel; the *Newport* has no Navy personnel; the *Constellation* is carried under shore stations; the *Constitution* is carried under shore stations; the *Oregon* is out of commission another relic; the *Philadelphia* is a receiving ship; the *Reina Mercedes* is at the Naval Academy, Annapolis; the *Southery* is a receiving ship; the *Wilmette* has 25; the *Wolverine*, 8; the *Yantic*, 15; the *Commodore*, 6; the *Sturgeon Bay*, nothing. I have nothing under *Sturgeon Bay*. She would come under shore stations. The *Briardiff* belongs at New York.

That is the end of the list.

Mr. KELLEY. Do you remember how many that takes out, or have you added it up?

Admiral COONTZ. About 13,227. I will have to go over it and verify the figures.

Mr. KELLEY. In revising your remarks, put them under the proper classifications.

Admiral COONTZ. I will do so.

Mr. KELLEY. I would like for you to do that so that we may preserve the classification with the original list, in order that anybody in making a comparison or in checking the list over would know exactly what classifications those ships are taken out of. They were in one list together, and I would like for you to separate them, giving the number of men added for each group. Then let the footings show that the 10,000 have been eliminated by reason of those ships.

Admiral COONTZ. I will do so.

Secretary DENBY. I would like to put in a statement in the form of a letter at this point, covering the matter just gone over.

Mr. KELLEY. When the hearings come down to you for revision, I suggest that you insert your letter at this point.

(The statement referred to is as follows:)

SECRETARY OF THE NAVY,
Washington, March 18, 1922.

MY DEAR MR. CHAIRMAN: I have received your letter of March 16 suggesting that the bureaus be informed in time to prepare estimates on the basis of a Navy of 65,000 men and giving a schedule of dates on which the different bureau representatives are to appear before the committee. The bureaus have been instructed accordingly, and you are now hearing them from day to day. In the meantime the department has been engaged upon the very difficult task of allocating the personnel upon the hypothetical basis of 65,000 men.

I send you inclosed herein a list of ships to be retained upon the basis of 65,000 men and shore stations, together with the personnel for their necessary operation.

The salient facts to be considered in connection with the study of these figures are:

(1) That our available force for sea is 46,000, because in the opinion of the department it is vitally necessary for the best interests of the Navy and the Government to keep the vessels referred to in commission and the shore station activities as a necessary adjunct.

(2) Six battleships of the first line, being all the 12-inch gun ships, will of necessity go into ordinary with complements only large enough to preserve them and keep them ready for as quick action as possible. I also call your attention in this connection to the fact that this involves the withdrawal of the flagship *Utah* from the European squadron and the abandonment of that station. It is the opinion of the department that for the national defense it is better to have 12 full complement, ready-for-action ships than it is to have 18 part complement ships not ready for action. I personally believe that a ship too greatly undermanned is a sick ship and will be of little account in battle.

(3) In addition to the 46,000 actually serving on ships, the arbitrary 7 per cent replacements bring up the figure to 50,550, leaving for shore stations only 14,450.

(4) The destroyers are reduced to 65 with 90 per cent complements, with 50 in reserve with 50 per cent complements.

(5) All submarines, second line, are placed out of commission.

(6) Practically all Eagle boats, subchasers, and other small craft now used for training reservists or other purposes go out of commission.

(7) If we are to consider the appropriation for the year as of July 1 to be on the basis of 65,000 men, we must start the year on July 1 with 65,000 men. That means we must reduce between the date of the approval of the appropriation bill for the fiscal year 1923, should it contain the figure of 65,000, by getting rid, by discharge or otherwise, of approximately 31,000 men. The committee will readily appreciate the difficulty that confronts the department in such a procedure, concerning which we shall be happy to make further explanation upon call.

In the submission of our figures it must always be remembered that the Navy is a mobile force; that it is subject to constant unexpected demands and changes, and therefore all detailed figures must be considered as only tentative, subject to change by the department as necessity arises.

In regard to the figure submitted, I must further inform you that it is wholly inadequate in the estimation of the department to properly man the United States Navy. It will necessitate leaving ships of vital importance out of the battle line. The ratio established in the naval treaty which is now before the Senate for consideration is for the three great naval powers, the United States, Great Britain, and Japan, 5-5-3. Under the personnel allowance of 65,000, according to our best information, this ratio will be reduced to 2½-5-3 for the United States, Great Britain, and Japan, respec-

tively; or, more concretely, the American personnel will be one-half that of Great Britain and will be considerably less than that of Japan. I need not cite the extraordinary spectacle thus presented.

Sincerely yours,

EDWIN DENBY.

HON. MARTIN B. MADDEN,
Chairman Committee on Appropriations,
House of Representatives.

March 16, 1922.

	Person- nel.	per cent replac- ement.
12 battleships, first line (95 per cent complements).....	14,244	57
6 battleships, first line (in ordinary).....	1,236	"
4 cruisers, second line.....	2,598	"
3 light cruisers, first line.....	1,257	"
3 light cruisers, second line.....	876	"
1 aircraft carrier, second line.....	339	"
1 mine layer, second line.....	319	"
65 destroyers, first line (90 per cent complements).....	6,530	"
50 destroyers, first line (50 per cent complements).....	2,550	"
4 light mine layers.....	380	"
84 submarines, first line.....	2,579	"
10 patrol vessels, gunboats.....	585	"
4 patrol vessels.....	430	"
5 destroyer tenders.....	2,309	"
7 submarine tenders.....	1,882	"
1 aircraft tender.....	296	"
1 repair ship.....	430	"
1 store ship.....	285	"
2 colliers.....	228	"
7 oilers.....	768	"
2 ammunition ships.....	354	"
5 cargo vessels.....	451	"
3 transports.....	593	"
1 hospital ship.....	361	"
8 tugs (includes 6 station ships).....	340	"
10 mine sweepers (2 mine sweeping, 7 fleet towing, and 1 air tender).....	477	"
4 auxiliaries, miscellaneous.....	358	"
Flag complements.....	791	"
Fleet aviation.....	1,100	"
Total.....	46,000	1
12 battleships, first line (95 per cent complements):		
Pacific Fleet.....		
New York.....	1,243	
Texas.....	1,243	
Nebraska.....	1,177	
Oklahoma.....	1,177	
Pennsylvania.....	1,176	
Arizona.....	1,170	
New Mexico.....	1,205	
Mississippi.....	1,170	
Idaho.....	1,170	
Tennessee.....	1,201	
California.....	1,201	
Maryland (assigned).....	1,204	
Total.....	14,244	57
6 battleships, first line (in ordinary):		
In ordinary.....		
Delaware.....	306	
North Dakota.....	306	
Florida.....	306	
Utah (European waters, flag).....	306	
Wyoming.....	306	
Arkansas.....	306	
Total.....	1,236	5
2 battleships, second line:		
Illinois, loaned to State of New York, training Naval Militia.....		
Connecticut, to be replaced by armored cruiser Seattle if treaty is signed.....		
Battle cruisers, first line (None 2 to be converted to aircraft carriers).....		
4 cruisers, second line.....		
Rochester, Atlantic Fleet destroyers flag at Charleston, S. C.....	544	
Huron, Asiatic Fleet flagship.....	791	

March 16, 1922—Continued.

	Personnel.	7 per cent replacements.
cruisers, second line—Continued.		
Seattle, navy yard, Puget Sound, out of commission (Seattle to replace Connecticut if treaty is signed).....	612	
Pueblo, to replace Utah in European waters later.....		
Charleston, Pacific Fleet destroyer flagship.....	649	
Total.....	2,506	182
light cruisers, first line:		
Omaha, commission when completed Mar. 31, 1922.....	419	
2 others when completed.....	838	
Total.....	1,257	88
light cruisers, second line:		
Special service squadron—		
Birmingham.....	800	
Denver.....	288	
Galveston.....	288	
Tacoma.....		
Cleveland.....		
Total.....	876	61
aircraft carrier, second line: Langley (ex-Jupiter), being converted at navy yard, Norfolk; date completion May 1, 1922; will be commissioned about Apr. 1, 1922.....	339	24
line layers, second line:		
Baltimore, Pacific Fleet, mine squadron 2, at Pearl Harbor to go out of commission when relieved by Aroostock.....		
Aroostock, Pacific Fleet aircraft tender, goes to mine force when relieved by Langley.....		
Shawmut, Atlantic Fleet, mine squadron 1.....	356	25
5 destroyers, first line (90 per cent complement):		
With Atlantic Fleet.....	19	
With Pacific Fleet.....	19	
With Asiatic Fleet.....	19	
In European waters.....	8	
Total.....	65	
0 destroyers, first line (50 per cent complement):	6,630	464
At Charleston and San Diego.....	2,850	200
destroyers, second line: None.		
0 light mine layers:		
Atlantic mine squadron—		
Murray.....		
Israel.....		
Maury.....		
Mahan.....		
Asiatic mine squadron—		
Hart.....	95	
Pacific mine squadron—		
Ingraham.....		
Ludlow.....	95	
Burns.....	95	
Anthony.....		
Asiatic mine squadron—		
Rizal.....	95	
Total.....	380	27
4 submarines, first line:		
16 O's.....	432	
27 R's.....	729	
38 S's.....	1,262	
3 T's.....	126	
Total.....	2,579	181
7 submarines, second line:		
8 M's.....		
8 K's.....		
8 L's.....		
3 N's.....		
5 patrol vessels, Eagles:		
Eagle 6, at Pearl Harbor, engaged in antisubmarine tactics.....		
Eagle 7, at Pearl Harbor, engaged in antisubmarine tactics.....		
Eagle 8, at Pearl Harbor, engaged in antisubmarine tactics.....		
Eagle 9, fifth naval district, training reservists.....		
Eagle 11, duty with submarines at San Pedro (personnel shown under shore establishments).....		
Eagle 12, training reservists, eleventh naval district.....		

March 16, 1922—Continued.

	Person- nel.	per month
35 patrol vessels, Eagles—Continued.		
Eagle 13, training reservists, third naval district		
Eagle 14, duty with submarines at Pearl Harbor (personnel shown under shore establishment)		
Eagle 15, training reservists, third naval district		
Eagle 17, duty with submarines, Hampton Roads (personnel shown under shore establishment)		
Eagle 19, training reservists, first naval district		
Eagle 23, on duty Quantico, freight and passengers to Washington		
Eagle 26, training reservists, third naval district		
Eagle 27, training reservists, third naval district		
Eagle 29, training reservists, first naval district		
Eagle 31, duty submarines at Coco Solo (personnel shown under shore establishment)		
Eagle 33, duty submarines, New London (personnel shown under shore establishment)		
Eagle 34, training reservists, eleventh naval district		
Eagle 35, training reservists, twelfth naval district		
Eagle 36, training reservists, eighth naval district		
Eagle 38, training reservists, thirteenth naval district		
Eagle 39, training reservists, seventh naval district		
Eagle 40, duty air station, Pearl Harbor		
Eagle 42, training reservists, first naval district		
Eagle 44, training reservists, third naval district		
Eagle 47, training reservists, twelfth naval district		
Eagle 48, training reservists, third naval district		
Eagle 51, training reservists, third naval district		
Eagle 52, training reservists, fourth naval district		
Eagle 54, training reservists, third naval district		
Eagle 55, training reservists, third naval district		
Eagle 56, training reservists, Washington, D. C.		
Eagle 57, training reservists, thirteenth naval district		
Eagle 58, training reservists, Pearl Harbor		
Eagle 59, training reservists, third naval district		
Eagles, summary (present detail)—		
In commission, 35—		
Training reservists	26	
Submarine duties	8	
Air-station duty	1	
Ferry, Washington to Quantico	1	
Total	35	
43 patrol vessels, submarine chasers:		
Scout cruiser 57, Naval Academy, intermittently training midshipmen		
Scout cruiser 63, St. Louis, training reservists		
Scout cruiser 64, St. Louis, training reservists		
Scout cruiser 69, St. Petersburg, training reservists		
Scout cruiser 102, Naval Academy, intermittently training midshipmen		
Scout cruiser 103, New Haven, Conn., training reservists		
Scout cruiser 104, Tampa, Fla., training reservists		
Scout cruiser 143, New York, training reservists		
Scout cruiser 154, seventh naval district, cable watch, Key West		
Scout cruiser 159, eighth naval district, station duties, New Orleans, La.		
Scout cruiser 185, Dahlgren, Va., proving ground duties		
Scout cruiser 191, eighth naval district, training reservists		
Scout cruiser 192, Indianhead proving ground duties		
Scout cruiser 210, New York and Washington, training reservists		
Scout cruiser 214, Haiti, activities, marine brigade, Haiti		
Scout cruiser 224, Haiti, activities, marine brigade, Haiti		
Scout cruiser 221, third naval district, training reservists		
Scout cruiser 229, Naval Academy, intermittently training midshipmen		
Scout cruiser 241, Naval Academy, intermittently training midshipmen		
Scout cruiser 247, Naval Academy, intermittently training midshipmen		
Scout cruiser 251, Indianhead, Md., out of commission		
Scout cruiser 253, Haiti, activities, marine brigade, Haiti		
Scout cruiser 271, St. Paul, Conn., training reservists		
Scout cruiser 277, eleventh naval district, duty with reserve destroyer force		
Scout cruiser 278, eleventh naval district, duty with reserve destroyer force		
Scout cruiser 284, fifteenth naval district, submarine operations		
Scout cruiser 285, fifteenth naval district, seaplane tender		
Scout cruiser 287, fifteenth naval district, undergoing overhaul		
Scout cruiser 303, twelfth naval district, calibration compasses		
Scout cruiser 306, eleventh naval district, duties connection with Pacific Fleet		
Scout cruiser 326, Naval Academy, intermittently training midshipmen		
Scout cruiser 328, Naval Academy, intermittently training midshipmen		
Scout cruiser 339, ninth naval district, training reservists		
Scout cruiser 349, St. Thomas		
Scout cruiser 408, first naval district, general district duties		
Scout cruiser 412, ninth naval district, training reservists		
Scout cruiser 414, ninth naval district, training reservists		

March 16, 1922—Continued.

	Person- nel.	7 per cent replac- ements.
43 patrol vessels, submarine chasers—Continued.		
Scout cruiser 431, ninth naval district, ordnance third naval district for training reservists.....		
Scout cruiser 432, ninth naval district, at Cleveland, training reservists.....		
Scout cruiser 433, ninth naval district, ordnance third district, training reservists.....		
Scout cruiser 437, ninth naval district, ordnance third district, training reservists.....		
Scout cruiser 440, Naval Academy, intermittently training midshipmen.....		
Scout cruiser 443, San Domingo, duties connection military government, Dominican Republic.....		
Scout cruiser 444, San Domingo, duties connection military government, Dominican Republic.....		
Subchasers, summary (present detail)—		
Training midshipmen.....	8	
Training reservists.....	17	
District and naval station duties.....	17	
Submarine and seaplane duties.....	2	
Total.....	44	
10 patrol vessels, gunboats:		
Wilmington, Asiatic Fleet, Yangtze patrol at Amoy.....	162	
Palos, Asiatic Fleet, Yangtze patrol.....	46	
Sacramento, Asiatic Fleet, assigned orders to proceed withheld.....	149	
Monocacy, Asiatic Fleet, Yangtze patrol.....	46	
Asheville, Asiatic Fleet, assigned orders to proceed withheld.....	148	
Elcano, Asiatic Fleet, Yangtze patrol.....	92	
Pampanga, Asiatic Fleet, South China patrol.....	30	
Quiros, Asiatic Fleet, Yangtze patrol.....	55	
Villalobos, Asiatic Fleet, Yangtze patrol.....	55	
Isabel, Asiatic Fleet, Yangtze patrol.....	83	
Total.....	866	61
(4) Patrol vessels:		
Mayflower, navy yard, Washington (President).....	160	
Vixen, Navy Station, St. Thomas (station ship).....	72	
Nokomis, San Domingo City (station ship and transport for military government).....	66	
Scorpion, Constantinople station ship.....	132	
Total.....	430	30
(5) 5 auxiliaries, destroyer tenders:		
Melville.....	449	
Black Hawk.....	440	
Bridgeport.....	520	
Altair.....	450	
Denebola.....	450	
Total.....	2,309	162
(7) Auxiliaries, submarine tenders:		
Fulton.....	134	
Bushnell.....	195	
Beaver.....	292	
Camden.....	344	
Rainbow.....	297	
Savannah.....	338	
Canopus.....	282	
Total.....	1,882	132
(1) Auxiliaries, aircraft tenders: Wright.....	286	20
(2) Auxiliaries, repair ships:		
Prometheus, Atlantic Fleet (training).....		
Vestal, Pacific Fleet (training).....	430	30
(3) Auxiliaries, store ships:		
Bridge, Atlantic Fleet (training).....		
Rappahannock, Pacific Fleet (training).....	268	19
Arctic, Atlantic Fleet (training).....		
(3) Auxiliaries, collers:		
Proteus, Atlantic Fleet.....		
Nereus, Atlantic Fleet.....		
Orion, Atlantic Fleet.....	164	
Jason, Pacific Fleet.....	164	
Total.....	328	23
(10) Auxiliaries, oilers:		
Arethusa, N. T. S. Atlantic.....		
Brazos, Atlantic Fleet.....	120	
Cuyama, Pacific Fleet.....	120	

March 16, 1922—Continued.

	Person- nel.	7 p re m
(10) Auxiliary oilers—Continued.		
Kanawha, Pacific Fleet.	120	
Neches, Pacific Fleet.	101	
Total.	461	
Patoka, N. T. S. Pacific.	91	
Pecos, Asiatic Fleet.	120	
Ramapo, N. T. S. Pacific.	91	
Trinity, N. T. S. Atlantic.		
Sapelo, N. T. S. Atlantic.		
Total.	703	
(2) Auxiliaries, ammunition ships:		
Pyro.	177	
Nitro.	177	
Total.	354	
(8) Auxiliaries, cargo ships:		
Kittery.	87	
Newport News.		
Bath.		
Capella.	91	
Sirius.	91	
Vega.	91	
Regulus.	91	
Beaufort.		
Total.	451	
(3) Auxiliaries, transports:		
Henderson.	397	
Argonne.	222	
Chaumont.	214	
Total.	833	
(2) Auxiliaries, hospital ships:		
Relief.	361	
Mercy.		
Total.	361	
(29) Auxiliaries, fleet tugs:		
Albion, eighth naval district, Pensacola, air station duties.		
Bay Spring, seventh naval district, Key West, district towing.		
Challenge, thirteenth naval district, Puget Sound, district towing.		
Chemung, at Annapolis, Chesapeake Bay towing.		
Contocook, on duty with Atlantic Fleet.	39	
Iroquois, thirteenth naval district, Puget Sound, district towing.		
Kalnia, fourth naval district, Philadelphia, district towing.		
Neosawqua, fourteenth naval district, Pearl Harbor, island duties.		
Kewaydin, fifth naval district, Norfolk, air station duties.		
Koka, eleventh naval district, San Diego, district towing.		
Lykens, third naval district, New York.		
Mahone, thirteenth naval district, Puget Sound, district towing.		
Mohawk, first naval district, Boston, district towing.		
Montcalm, Guantanamo, general towing.	39	
Napa, Guam, island duties.	39	
Ontario, Salmon, island duties.	54	
Oswega, Haiti, island duties.	34	
Patuxet, first naval district, Boston, district towing.		
Patuxent, fifteenth naval district, Canal Zone, air station duties.		
Piscataqua, sixteenth naval district, Cavite, Asiatic Fleet.		
Potomac, Santo Domingo, island towing.	42	
Sagamore, third naval district, Iom Island, ammunition depot duties.		
Sciot, fifteenth naval district, Canal Zone, district towing.		
Sanoma, on duty with Pacific Fleet.	54	
Sumasdin, fourteenth naval district, Pearl Harbor, island duties.		
Tadousac, St. Thomas, island duties.	39	
Tillamook, twelfth naval district, Mare Island, district towing.		
Umpequa, sixth naval district, Charleston, district towing.		
Undaunted, twelfth naval district, Norfolk, district towing.		
Total.	340	
(26) Auxiliaries, mine sweepers:		
Robin, Guantanamo, training, Atlantic.	43	
Swallow, Bremerton, thirteenth district.		
Tanager, Pearl Harbor, mine squadron, Pacific.	54	

March 16, 1922—Continued.

	Person- nel.	7 per cent replac- ements.
auxiliaries, mine sweepers—continued.		
Cardinal, San Pedro, training, Pacific.	45	
Curlew, Guantanamo, mine squadron, Atlantic.		
Finch, Cavite, mine squadron, Asiatic.		
Quall, Guantanamo, training, Atlantic.	45	
Partridge, San Diego, training, Pacific.	45	
Bobolink, Guantanamo, training, Atlantic.		
Lark, Guantanamo, mine force, Atlantic.		
Teal, Charleston, air squadron, Atlantic.		
Brant, San Diego, training, Pacific.	45	
Kingfisher, San Pedro, training, Pacific.	45	
Rail, Guantanamo, training, Atlantic.		
Falcon, New York yard, submarine salvage vessel.		
Seagull, Pearl Harbor, mine squadron, Pacific.	54	
Tern, San Diego, training, Pacific.	45	
Penguin, Pearl Harbor, mine squadron, Pacific.		
Whippoorwill, Pearl Harbor, mine squadron, Pacific.		
Bittern, Cavite, mine squadron, Asiatic.		
Chewink, Guantanamo, mine squadron, Atlantic.		
Cormorant, Philadelphia, special duty, Bureau of Ordnance.		
Gannet, San Pedro, seaplane tender, Pacific.	54	
Mallard, Guantanamo, mine squadron, Atlantic.		
Sandpiper, Miami, air squadron, Atlantic.		
Vireo, Guantanamo, training, Atlantic.		
Total.	477	33
Summary, mine sweepers (present detail):		
Atlantic training, fleet towing.	5	
Pacific training, fleet towing.	5	
Atlantic air squadron.	2	
Atlantic mine squadron.	4	
Pacific mine squadron.	4	
Asiatic mine detachment.	2	
Pacific air tender.	1	
Submarine salvage.	1	
Alaska radio calibration.	1	
Bureau of Ordnance experimental purposes.	1	
Total.	26	
3) Auxiliaries, miscellaneous:		
Hannibal, survey ship; now at work coast Honduras.	146	
General Alava, Asiatic station; transport, Cavite to Olongapo.	54	
Paducah, Navy yard, Portsmouth; assigned ninth naval district for United States Naval Reserve Force.		
Gold Star, fitting out at Philadelphia; Alaska radio repair ship, replaces Saturn.	97	
Antares, target repair ship.		
Procyon, target repair ship.	91	
Total.	388	27
25) Unclassified:		
Annapolis, loaned State of Pennsylvania as nautical school ship.		
Boston, receiving ship, San Francisco.		
Cheyenne, training ship, United States Naval Reserve Force, fifth district, Baltimore.		
Chicago, submarine shore-based tender at Pearl Harbor.		
Coast B. S. No. 4 (ex-Iowa), target ship, radio controlled.		
Essex, ninth naval district training, United States Naval Reserve Force.		
Gopher, ninth naval district training, United States Naval Reserve Force.		
Hartford, receiving ship, Charleston, S. C., naval relic.		
Hawk, ninth naval district training, United States Naval Reserve Force.		
Kearsarge, crane ship under conversion, navy yard, Philadelphia.		
Nantucket, loaned State Massachusetts as nautical school ship.		
Newport, loaned State New York as nautical school ship.		
Old Constellation, station ship, Newport, naval relic.		
Old Constitution, navy yard, Boston, naval relic.		
Oregon, navy yard, Puget Sound, out of commission, naval relic.		
Philadelphia, navy yard, Puget Sound, receiving ship.		
Reina Mercedes, Naval Academy station ship.		
Southern, navy yard, Portsmouth receiving ship.		
Wilmette, ninth naval district training, United States Naval Reserve Force.		
Wolverine, fourth naval district training, United States Naval Reserve Force.		
Yantic, ninth naval district training, United States Naval Reserve Force.		
Commodore, ninth naval district, hulk bedded in concrete, station ship, training reserves.		
Sturgeon Bay, at Norfolk; out of commission; to be loaned State New York; of to be transferred to Buffalo for New York Naval Militia.		
Briarcliff, at Staten Island, loaned status, New York, training Naval Militia.		

Distribution of forces on shore, based on Navy of 65,000 men (46,000 men

Shore-base tenders.....	
District vessels.....	
Receiving ships and barracks.....	
Navy yards.....	
Training stations (150 caretakers).....	
Trade schools (includes students).....	
Hospitals.....	
Naval prisons.....	
Communications.....	
Aviation.....	
Ammunition depots and torpedo stations.....	
Recruiting.....	
Men under training.....	
Replacements.....	
Grand total.....	8

DISTRICT CRAFT.

DESIGNATION.

Mr. KELLEY. There is one classification of seagoing craft that we did not have your comment on the other day, and that is the craft, which were put down in the Paymaster General's report you were going to look them up. You will find that on of the paymaster's report for 1921. There appears to have expended \$4,307,136.97 for district craft, and we have not been to find out what ships those were.

Secretary DENBY. They are also covered as district craft in Navy districts.

Mr. KELLEY. This comes under the title of fleet maintenance.

Secretary DENBY. You will remember that we had a discussion about that the other day.

Mr. KELLEY. If they are improperly classified here, know that.

Admiral COONTZ. I would like to make this statement of those figures: Under the heading of Statement No. 4, naval appropriation found on page 155 of the Annual Report of the Paymaster General of the Navy for the fiscal year 1921, there is a charge of \$4,307,136.97 made up of six subtotals under an equal number of headings distributed among the 14 naval districts. This charge is a general appropriation charge, but is a summary of items under many headings which contribute to the expense of the 14 naval districts.

The figures include charges ashore and afloat within each naval district which are not charged to a specific ship or station. It does not include charges to ships and stations which are otherwise separately listed in the report of the Paymaster General. Thus, on pages 93 to 154 are listed certain specific ships and stations. The charge to naval districts does not include these particular ships and stations. In general, it does not include tugs and patrol vessels, because these will be found separately listed. In general, it may be said that it includes the "District craft" listed in the Ship's Data Book, less those ships which have been separately listed elsewhere in the Paymaster General's report, specifically tugs and patrol vessels. It does not include charges which are specifically made to any large station.

within a naval district. During the war it was the custom to recapitulate under the heading "Naval districts" the expenses of all small activities within each naval district which did not amount to more than \$50,000 for the year. This procedure is still in force in a

general way, and consequently the recapitulation under the heading of naval districts is a catchall for small items. In regard to floating equipment and small miscellaneous craft, these are assigned to each naval district for general utility and service, such as salvage, wrecking, dredging, rescue work, etc. Some of these craft are retained for general work in the district, and in such cases their charges are recapitulated under the heading "Naval districts." On the other hand, most of these craft are assigned to a specific large station, in which case they are carried as belonging to that station. It is thus seen that the physical and geographic layout of a naval district has some influence on whether these miscellaneous craft can be assigned to a specific station, or whether they are retained under the commandant of the naval district for general service of all of the activities in the immediate locality.

The charges under the recapitulation, "Naval districts" include items like the following: The headquarters organization, pay for naval personnel, pay for civil personnel, rations and subsistence, tents, rifle ranges, training camps, coal barges, oil barges, stevedoring barges, torpedo testing barges, water barges, floating derricks, ferryboats, launches, ammunition lighters, ash lighters, freight lighters, garbage lighters, pile drivers, floating workshops, seaplane barges, ambulance boats, heating scows, dredges, seaplanes, wrecking derricks, and mud scows, where they are not carried separately or assigned to a specific station. I refer you to pages 326 and 331 of the Ship's Data Book, July 1, 1921, for the allocation of these craft to the districts.

Captain Leutze is here and can make any further explanation of his matter you desire. These are what might be called small catchalls on the coast of the United States, and such places which are brought under these headings, and where the money is provided under other appropriations, from "Pay, miscellaneous" on down.

Mr. KELLEY. They are not district craft?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. They are not included with these other ships?

Admiral COONTZ. Yes, sir; district craft is a very minor thing.

Mr. KELLEY. This charge is not minor.

Admiral COONTZ. I mean as compared with the large-sized ships.

SEPARATION OF CHARGES AGAINST DISTRICT CRAFT AND SHORE STATIONS.

Secretary DENBY. Is there any way of separating the charges against these district craft from the shore charges?

Mr. REED. No, sir; we can not analyze them that way.

Secretary DENBY. You can not get the exact personnel and the cost?

Admiral COONTZ. One item is \$450,000 for rent.

Mr. REED. No, sir; there is no rent under this.

Mr. KELLEY. Mr. Reed, this is your work—the Paymaster General's report?

Mr. REED. Yes, sir.

Mr. KELLEY. Are there any charges under this heading that properly chargeable against shore stations?

Mr. REED. In the expense of personnel, or enlisted personnel, are probably some charges of that kind that come in where accounts of the personnel attached are carried on the ships. In words, although actually employed on shore, and while their are on shore, their accounts are carried on the ships.

TOTAL OPERATING EXPENSES.

Mr. KELLEY. What do you mean by the column, "Total operating expenses, \$3,826,000"? That is operating expenses of what? That relate to ships or to shore stations; and if it is for shore stations why do you put it in here?

Mr. REED. The charges were reported or the accounts were reported by the disbursing officers having charge of floating equipment. The charges were reported in that way as charges against equipment.

Mr. KELLEY. The charges were reported to you as having incurred against floating matériel of the Navy, and that is why put it here?

Mr. REED. Yes, sir.

Mr. KELLEY. Is there anything in there for the support of stations, so far as you know?

Mr. REED. The only item that would be in there in connection with shore stations would be pay of personnel.

Mr. KELLEY. If it were pay of personnel for people on shore, it would not be in here, would it?

Mr. REED. If they were reported as being attached to a ship.

Mr. KELLEY. That is to say, every dollar in this table was reported to you as having been incurred on vessels afloat?

Mr. REED. No, sir; not vessels afloat.

Mr. KELLEY. As attached to vessels?

Mr. REED. Yes, sir; or some floating equipment.

Secretary DENBY. We have a very similar question in regard to the shore-based submarines.

Mr. KELLEY. That is different. This naval district budget is expensive luxury, and it is one place where we can't cut it. The admiral told us the other day that there were no vessels attached to these places, and now we have a list of I don't know how many barges and other vessels attached to these stations.

Admiral COONTZ. I still stand on my statement, and I stand on the statement of Mr. Reed as to how the money is spent. I like to have a representative of the Paymaster General's Department to make an explanation of it. We got this list from the Bureau of Supplies and Accounts, and I dispute that statement or Mr. Reed.

Mr. KELLEY. You can see how helpless a committee of Congress is, if you and your officers do not know where the charges are.

Secretary DENBY. A statement will be forwarded to you covering that.

CRAFT OPERATED UNDER "FLEET MAINTENANCE."

Mr. KELLEY. Somebody should know where this \$5,000,000 has been spent; that is, whether on shore or whether on vessels attached to shore stations used as barracks or for other purposes. We would like to know what it is for, because this makes quite a difference.

Secretary DENBY. You want a list of the barges?

Mr. KELLEY. If you or if we are going to ask Congress to appropriate \$5,000,000 for these districts, it will be necessary for us to know something about these vessels that are running up and down the coast. It will be necessary for us to know what they are and what they are for. We want to know why these vessels that were not being kept up before the war are being kept up now. We want to know why all these little craft are used, and why they are permitted to burn up coal and oil fuel. From the item of pay of men here alone, amounting to about \$934,000, it would seem that there are about 1,000 men involved here.

Colonel ROOSEVELT. I know in a general way about it, but I can not itemize it. I know about where the money goes, and it goes partly one way and partly another. In so far as the district expenses go, they are carried under different heads.

Secretary DENBY. They have always had these harbor craft that go around and attend upon the ships and stations. You have got to have coal barges, tugs, scows, and all those things.

Mr. KELLEY. Are those tugs manned by enlisted men?

Admiral COONTZ. Most of them.

Mr. KELLEY. The water barges and other craft of that kind carried on this list here are manned by enlisted men?

Admiral COONTZ. A good many of them are. About 1,500 men are required to man all of these craft. These things have always been assigned at navy yards, and we have always had tugs, coal barges, and lighters of different kinds. What I want to bring out is that so far as I know there are no district craft running up and down on the coast, except what we have gone over already.

Mr. KELLEY. I understood you to say the other day that you had given us a full list of the vessels, but now you give us another list.

Colonel ROOSEVELT. I think we are talking at cross purposes. I think the admiral intended to say that the lighters, derricks, water barges, etc., are not vessels. I think the admiral has been using that as the dividing line.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. I do not need to tell the admiral what a ship is. I suppose that anything that floats should go on this list, or that was the idea I had. Here is a list in the report of the Paymaster General of the Navy, under upkeep of the Navy. This is under the title of "Fleet maintenance," and there is an item of \$5,000,000 in there under "Fleet maintenance." Now, we want to find out what ships they are.

Admiral COONTZ. I can give you a statement of all the craft at the navy yards which have not been tabulated elsewhere.

Mr. KELLEY. These are not included in the cost of maintenance of vessels at navy yards proper, nor under shore activities.

Admiral COONTZ. They should be charged to navy yards activities in almost every case.

Mr. KELLEY. Mr. Reed, what small navy-yard craft are put down as shore craft?

Mr. REED. The expenses of barges, lighters, and things of kind that are specifically attached to a particular station are reported in these tables as expenses of the station.

Mr. KELLEY. Of shore stations?

Mr. REED. Yes, sir.

Mr. KELLEY. Then the vessels not attached to any navy yard station are purely district craft operated by district organizations?

Mr. REED. Yes, sir; although they are temporarily at assigned to work at a particular yard or station.

Colonel ROOSEVELT. They are functioning in the same way other craft.

ALLOCATION OF DISTRICT CRAFT.

Mr. KELLEY. Every navy yard and every naval station has a lot of small craft with which they handle yard business. They take water out to a ship or some material out to a ship, and it is charged as a yard proposition. It is paid for out of the Bureau of Yards and Docks appropriation, is it not, or out of Steam Engineering, or Construction and Repair, but it does not come out of upkeep of the Navy?

Secretary DENBY. Here is a memorandum on that subject.

Mr. KELLEY. These craft are charged against yard establishments but here is a list of craft the upkeep of which or the maintenance of which amounts to \$5,000,000 a year, and these craft are not the property of any navy yard, but they belong to the naval district organizations, being made up of yachts—

Mr. REED (interposing). Of barges, lighters, derricks, etc.

Mr. KELLEY. They are not assigned to any navy yard at all.

Commander HILL. They are assigned to navy yards.

Mr. KELLEY. Then, if they are assigned to navy yards, they are paid for from navy-yard funds. If they are not assigned to navy yards, but are assigned to these organizations, are they paid for in this way?

Admiral COONTZ. Yes, sir.

OPERATION OF NAVAL DISTRICTS.

Mr. KELLEY. Who has control of them, then; you or the Bureau of Construction and Repair?

Admiral COONTZ. The commandant of the naval district. We have assigned them by name, and I would like to read from the record—

Mr. KELLEY (interposing). Let us get at the fundamental thing first. Who has charge of these naval districts?

Admiral COONTZ. I look out for the commandants.

Mr. KELLEY. You do not have charge directly of the navy yards?

Admiral COONTZ. No, sir.

Mr. KELLEY. They are indirectly operated by the Bureau of Construction and Repair?

Admiral COONTZ. No, sir; by the Secretary of the Navy and Assistant Secretary of the Navy.

Mr. KELLEY. I know that; but the Secretary must of necessity operate them through some bureaus?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. These naval districts are operated through you?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. If they are operated through you, they are charged in one way, but if they are operated through Construction and Repair they are charged in another way.

Mr. REED. The enlisted personnel on board would be paid as they would be on any other floating equipment, and the subsistence would be paid from the same appropriation, but the expenses would be reported in the tables as expenses for the maintenance of shore stations. The expenses that are grouped in this particular classification cover personnel and expenses in connection with craft not specifically and definitely assigned to any particular station. It does not affect the appropriation charge. The appropriation charge would be the same in either case.

Colonel ROOSEVELT. I know that Captain Leutze has been at the supply base at New York lately, and I think he could clear some of these things up.

TYPE OF SHIP COVERED BY "DISTRICT CRAFT."

Captain LEUTZE. Two years ago at the fleet supply base in New York we had 14 coal barges that were attached to the base and were carried there, and we had three self-propelled oil barges. Those barges were under the direction of the commandant of the district. If the battleship fleet came in there and wanted a barge for anything, a barge would be sent up alongside. It was not only operated for the base, but for the navy yard, and sometimes we would send them to New London or Rockaway, or wherever they needed vessels of this character. These are boats that are carried on the list under the naval districts, and they are manned by enlisted men, but usually by old-timers who can not go to sea any more.

Mr. KELLEY. The committee would like to have a list of all the craft that come properly under this head and that are not chargeable to navy yards and regular stations.

Admiral COONTZ. You will find that list on page 326, "Ships data book, 1921."

Mr. KELLEY. With the number of men reported?

Admiral COONTZ. On page 326 you will find the list, covering coal barges, fuel oil barges, stevedoring barges, torpedo-testing barges, water barges, floating derricks, ferry boats and launches, ammunition lighters, ash lighters, freight lighters, garbage lighters, pile drivers, district tugs, floating workshops, patrol vessels, and unclassified vessels. Most of this work is, of course, done at navy yards, but how the charges are made is something that Supplies and Accounts must furnish.

PERSONNEL, NAME, AND LOCATION OF DISTRICT CRAFT.

Mr. KELLEY. This list shows barge at Boston. Have you gone over that to see whether you need it or not?

Admiral COONTZ. Yes, sir; we have gone over that district carefully and have reports. We have reports from all of the districts and have cut out some. For instance, in one place we cut out 40 per cent of the personnel, which means that some craft go out. Every district has reported.

Mr. KELLEY. How many men are you asking for these district craft?

Captain WILLIAMS. Fifteen hundred men.

Mr. KELLEY. Where do you ask for them?

Captain WILLIAMS. Under shore stations we have now 3,352. Most coal barges have not men on board.

Mr. KELLEY. I would like to have you go through this list and make a list of the live stuff.

Captain WILLIAMS. The charges are the same on that book whether we have men on or not.

Colonel ROOSEVELT. What you would like is a list of the operating coal barges, etc.?

Mr. KELLEY. I want a list of all this which cost \$5,000,000 last year.

Colonel ROOSEVELT. Of course, it will not approximate that this year.

Mr. KELLEY. Of course it will not; but I mean the stuff comes under this head, the live stuff, of course. You have got great many places as to where it is going to be, and we do not tend to say, of course, that this should be charged one or another but you ought to know just which place and you ought agree among yourselves as to which way it is, because if you do agree, of course, the patient has a hard road.

Secretary DENBY. That is covered in the shore station item.

Mr. KELLEY. I want you to make out a list of the district craft you will need next year and which appear charged in this item of \$5,000,000.

Admiral COONTZ. Very well. Would you care to have the personnel that is attached to it?

Mr. KELLEY. Yes; I think that would be a good thing.

Admiral COONTZ. I would prefer to do it that way.

List of district craft, showing location and personnel attached, Mar. 15, 1922.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On order.
FIRST NAVAL DISTRICT.				
Coal barges, YC 49, 50, 51, 52, 90, 91, 92, 93, 94, 95, 97, 99, 100, 101, 102, 104, 105, 127, 160, 161, 164, 230, 249, 250, 284, 289, 290, 345, 346, 347, 348, 433, 504, 505, 507, 508, 509, 510, 511, 522, 523, 524, 525, 526, 528, 529, 530, 531, 532, 533, 623, 624, 625, 626.		None.		
Fuel oil barges: YC 3, 13, 15, 20, 39, YO 14.		None. 2		

List of district craft, showing location and personnel attached, Mar. 15, 1922—Continued.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
FIRST NAVAL DISTRICT— continued.				
vedoring barges, Y8 14	.....	None.		
pedo testing barges:				
YT 1.	Torpedo station	155		
YT 2.	do.	128		
Water barges:				
YW 5.	Boston yard	1		
YW 11 and 22.	.....	None.		
Floating derricks, YD 9, 11, 13, 14, 20, 23, 35, 38.	.....	None.		
Ferryboats and launches:				
Narragansett.	Torpedo station	None.		Hustle.
Cyane.	do.	6		
Faithful.	do.	3		
Wave.	do.	None.		
Launch No. 132.	Portsmouth yard	.....	
Launch No. 1048.	do.	None.		
Munition lighters:				
YE No. 17 and No. 23	Boston yard	None.		
YE No. 30.	.....		Out.	
ash lighters:				
No. 13.	Melville.	None.		
No. 14.	Squantum	None.		
eight lighters:				
Nos. 77, 78, 79, 80, 81, 82	Boston	None.		
No. 98.	Portsmouth.	None.		
No. 12.	Newport.	None.		
No. 49.	Torpedo station.	11		
No. 41 and 63.	do.	None.		
agelighter, No. 5.	Boston yard	None.		
driver, YPD. 20.	do.	None.		
ict tugs:				
No. 71.	Boston	11		
Nottoway.	do.	9		
Iwana.	do.	11		
Penacook.	Portsmouth yard	9		
James Wooley.	do.	9		
No. 70.	Torpedo station.	9		
No. 73.	Melville.	None.		
ating workshop, No. 15	Boston, laid up.	None.		
ontrol vessel, Constance 11.	Boston.	None.		
nclassified, coast tor- pedo boat, No. 6.	Torpedo station.	11		
ueling barges.	Boston.	None.		Nos. 9, 10.
THIRD NAVAL DISTRICT.				
oal barges: YC 128, 258, 287, 568, 577, 595, 599, 600, and 601.	New York.	None.		
uel oil barge, No. 5.	do.	8		
aplane barge, No. 50.	.....		Loaned New York City.	
tevedoring barges, Nos. 39, 42, 47, and 48.	New York yard	None.		Nos. 40, 46, 50.
ater barge, No. 45.	do.	None.		
loating derricks:				
YD 37.	do.	4		
YD 49.	do.	6		
YD 39.	do.	.....	
YD 3, 21, 29, 44, and 54.	do.	.....	
YD 48.	.....	.....
erryboats and launches, No. 1059.	do.	5		
Munition lighters:				
YE 11, 18, 20, 32, 33.	Iona Island.	4		
YE 29.	New York yard	8		
YE 19.	do.	.....	

¹ Personnel charged against shore station, torpedo station.

² Personnel charged against torpedo station.

³ Personnel charged against shore station, ordnance.

List of district craft, showing location and personnel attached, Mar. 15, 1922—Con

Craft.	In service.	Comple- ment (enlisted men).	Out of commission.	On s
THIRD NAVAL DISTRICT— continued.				
Freight lighters:				
YF 1, 7, 92, 93, 94, 95, 96, 107, 112.	New York yard.....			
YF 161.....	do.....	7		
Garbage lighters, YG 1, 2, 9, and 10.	do.....			
Pile driver, YPD 1.....	do.....			
Heating scows, YHT 1, 2, and 3.	do.....	1		
District tugs:				Pawnee.
YT 54.....	New York yard.....	9		No. 53.
YT 56.....	do.....	9		No. 55.
YT 61.....	do.....	9		No. 63.
YT 67.....	do.....	10		No. 74.
YT 81.....	do.....			No. 84.
YT 72.....	Submarines, New London.	15		
Cayuga.....	New York yard.....	11		
Narkeeta.....	do.....	8		
Pentucket.....	do.....	11		
Floating workshops, Nos. 12 and 13.	do.....			
Patrol vessels:			Edithia.....	
Privateer.....	District.....	5		
Sanda.....	Loaned to New York City.			
Unclassified.....			Samoset.....	
Transfer.....	New York yard.....	6		
Nahant.....	Loaned to New York City.			
FOURTH NAVAL DISTRICT.				
Coal barges: YC 136, 255, 256, 290, 301, 506, 541, 542, 543, 544, 545, 546, 547, 548, 551, 552, 570, 571, 572, 578, 579, 594, and 602.	Philadelphia yard.....	None.		
Fueling barges, Nos. 11 and 12.	do.....	None.		
Fuel oil barge, No. 22....	do.....	7		
Water barge, No. 34.....	Cape May Air Station.	None.		
Ferryboats and launches.			Patchogue.....	
Floating derricks, Nos. 5, 30, and 45.	Philadelphia yard.....	None.		
Ammunition lighters, Nos. 26 and 34.	do.....	None.		
Ash lighters, Nos. 40 and 41.	do.....	None.		
Freight lighters:				
No. 71.....	Cape May.....	None.		
No. 9.....	Philadelphia yard.....	None.		
Pile driver, No. 10.....	do.....	None.		
District tugs:				
Nausett.....	Philadelphia yard.....	8		No. 57.
Modoc.....	do.....	8		No. 82.
Samoset.....	do.....	8		
Floating workshop, YR 10.	do.....			
Unclassified.....				Geo. F. P
FIFTH NAVAL DISTRICT.				
Ambulance boats, YH 3..	Tug director.....	3	YH 2.....	
Coal barges, Nos. 261, 262, 263, 264, 265, 266, 267, 268, 270, 271, 272, 273, 282, 284, 286, 291, 293, 295, 303, 305, 310, 313, 317, 318, 319, 354, 431, 432, 434, 459, 486, 488, 501, 502, 276, 461, 462, 471, 474, 473, 476, 480, 481.		None.		Nos. 118, 124.

* Personnel charged shore station, submarines.

list of district craft, showing location and personnel attached, Mar. 15, 1922—Continued.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
II NAVAL DISTRICT—continued.				
ing barges, Nos. 3 and 5.		None.		
oil barges.			YO 6; YO 7 (temporarily in sixth district).	
YO 31.	Tug director.	7	YO 38 (assigned sixth district).	YO 19.
ing barge, YS 12.	do.			
YW 33.	do.			YO 31.
icks, YD 7, 43.				
ats and launches.	Norfolk yard.	9		
y yard.	do.		Just arrived from first district.	
ammunition lighter, YE 25.			Repairing.	
eight lighters:				
No. 56.	Tug director.	9		
Nos. 67, 74, 91, 113, 116, 118, 121, 123, 75, 106.		None.		Nos. 53, 58, 59, 60, 61, 69, 90, 109, 76, 83, 114, 127, 138, 139, 99, 101, 102, 103, 104, 106.
rer, YPD 14.		None.		Tugs Nos. 76, 80, 83 and 47.
Advance.	Norfolk yard.	7		
Hercules.	do.	7		
Massasoit.	do.	6	Bouker No. 2 (loaned to city of Norfolk).	
hawk.	do.	7		
shot.	do.	7		
obscot.	Tug director.	7		
boats.	do.	8		
ps, YR.	Norfolk yard.	7		
and.		None.		
ed vessels.				Bie & Schlott. Ohio.
1.				
NAVAL DISTRICT.				
Coal barge.				
No. 341, 349, 456, 458.	Charleston yard.	None.		
12, 335, 338.	Marines, Parris Island.	None.		
YCD 7.	Charleston yard.	None.		
barge, YO 38.	Not yet arrived from fifth district.			
YW 9.	Marines, Parris Island.	None.		
ck, YD 1.	Charleston yard.	None.		
Nos. 9 and 10.	Navy yard.	None.		
boats and launches.	Marines, Parris Island.	None.		
iter, YE.	Ammunition depot.	None.		
ghter, YA.	Navy yard.	None.		
st lighters.				
No. 176.	do.	None.		
No. 84.	do.	None.		
ter, No. 18.	do.	None.		
tugs, Sebago.	do.	6		Tugs, Nos. 46, 79.
floating workshops, Nos. 14 and 16.	do.	None.		
Patrol vessel, Clarinda.	District.	8		
			Marija.	
EIGHTH NAVAL DISTRICT.				
Coal barge:				
Nos. 87, 150, 151, 208.				No. 232.
Nos. 4110, 43, 494, and 497.		None.		

List of district craft, showing location and personnel attached, Mar. 15, 1922—Conti

Craft.	In service.	Comple- ment (enlisted men).	Out of commission.	On sale
SEVENTH NAVAL DISTRICT—continued.				
Seaplane barges, Nos. 20 and 59.	.....	None.	.....	.....
Stevedoring barge, No. 67.	.....	None.	.....	.....
Floating derricks, Nos. 17 and 55.	.....	None.	.....	.....
District tugs, Saco.	Naval station, Key West.	9	.....	.....
Water barge, YW 12.	.....	None.	.....	.....
Freight lighter, YF 111.	.....	None.	.....	.....
Pile driver, YPD 19.	.....	None.	.....	.....
Patrol vessel, Zumbrota.	District commandant.	5	.....	.....
EIGHTH NAVAL DISTRICT.				
Coal barges, Nos. 320, 325, 408.	New Orleans.	None.	.....	.....
Stevedoring barges.	.....	.....	.....	YS 69, 70, and 78.
Water barge, YW 28.	.....	None.	.....	.....
Seaplane wrecking derricks, YSD 1 and 2.	Pensacola air station.	None.	.....	.....
Ferryboats and launches, ASP.	Captain yard.	2	.....	.....
District tugs.	.....	.....	.....	Adirondack.
NINTH NAVAL DISTRICT.				
Unclassified.	.....	.....	.....	Abdeck and tells lead Culver M Academy.
ELEVENTH NAVAL DISTRICT.				
Coal barges:	.....	.....	.....	.....
Nos. 387 and 388.	At Pichilingue.	None.	.....	Nos. 140 and Pichilingue
Nos. 220, 235, 244, 277, 297, 308, 309, 312, 360, 362, 365, 366, 367, 368, 387, 388, 392, 393, 231, 275, 281, 314, 316, 466, 469, 470.	San Diego.	None.	.....	.....
Fueling barges, YCD 1 and 2.	.....do.	None.	.....	.....
Fuel oil barges:	.....	.....	.....	.....
YO 9.	do.	9	.....	.....
YO 30.	do.	11	.....	.....
YO 23.	Fleet, San Diego.	12	.....	.....
YO 24.	do.	12	.....	.....
Seaplane barges:	.....	.....	.....	.....
YV 3.	do.	None.	.....	.....
YV 23.	San Diego.	None.	.....	.....
Water barges:	.....	.....	.....	.....
YW 30.	do.	None.	.....	.....
YW 47.	Pichilingue.	None.	.....	.....
Ash lighters:	.....	.....	.....	.....
YA 42 and 46.	San Diego.	None.	.....	.....
YA 60.	Fleet.	None.	.....	.....
Motor tugs:	.....	.....	.....	.....
YT 86.	San Diego.	3	.....	.....
YT 88.	Aviation, San Diego.	6	.....	.....
Freight lighter, YF-54.	San Diego.	None.	.....	.....
Garbage lighter, YG-7.	do.	None.	.....	.....
TWELFTH NAVAL DISTRICT.				
Ambulance boat, YH 1.	Training station.	5	.....	.....
Coal barges, Nos. 72, 131, 132, 152, 154, 166, 187, 188, 236, 239, 241, 243, 245, 246, 269, 283, 285, 307, 377, 378, 379, 380, 381, 382, 383, 384, 385, 396, 311.	Mare Island.	None.	.....	Nos. 73, 242.

List of district craft, showing location and personnel attached, Mar. 15, 1922—Continued.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
TWELFTH NAVAL DISTRICT—continued.				
Fueling barges, YCD 4, 6, and 8.	Mare Island	None.		
Oil barges, YO 8	do.	do.		
Oil barge, No. 21	do.	do.		
Oil barge, YW 16	do.	do.		
Derrick, YD 27	do.	do.		
Motor launch, M 2	do.	do.		
Boats and launches.			Admiral Glass.	
Astro.	Training station	6		
Dut.	Mare Island	5		
Relie.	Mare Island (fireboat)	16		
Ammunition lighters, Nos. 2, 27, and 35.	Ammunition depot	None.		
YA 31, 32.	Mare Island	do.		YA 23 and 39.
Nos. 4, 6.	do.	do.		
VMD 8 and 9	do.	do.		
	Mare Island	14		
	do.	14		
Motor launch.	do.	14		
Motor launch.	do.		Ordered out of com- mission.	
Motor tug— No. 87	do.			
No. 89	do.			
No. 95	do.	5		
No. 98	do.			
No. 99	do.	5		
No. 94	Training station	4		
Plant	do.	8		
Workshop, YR 5	Mare Island			Vergana. YF 29.
Workshop.				
THIRTEENTH NAVAL DISTRICT.				
YCD 156, 157, 159, 172, 190, 193, 223, 369, 372, 373, 374, 376, 399, 390, 391, 445, 447, 448, 467, and 396.	Puget Sound yard	None.		
Oil barges, YO 1	do.	None.		
Oil barge, YW 23	do.	None.		
Derrick, YD 29	do.	None.		
Ammunition lighters, Nos. 15, and 16.	Ammunition depot	None.		
Ammunition lighters, YA 35 and YA 36	Puget Sound yard	None.		
Ammunition lighters YG 6	do.	None.		
Ammunition lighters, YF 45, 51, 52, 87, 88, and 89	do.	None.		
Ammunition lighters, YF 45, 51, 52, 87, 88, and 89	Puget Sound yard	None.		
Motor tug.				
Motor tug.	do.	9		
Sotoyomo	do.	8		
Motor tug No. 98	Torpedo station	2		
Motor tug.			Helori.	
FOURTEENTH NAVAL DISTRICT.				
Coal barges, YC 251, 252, 253, 254, 274, 294, 296, 404, 405, 406, 407, 427, 428, 429, 477, 641, 642.	Naval station, Pearl Harbor.	None.		

List of district craft, showing location and personnel attached, Mar. 15, 1922—C

Craft.	In service.	Complement (enlisted men).	Out of commission.	On list
THIRD NAVAL DISTRICT—continued.				
Freight lighters:				
YF 1, 7, 92, 93, 94, 95, 96, 107, 112.	New York yard.			
YF 161.	do.	7		
Garbage lighters, YG 1, 2, 9, and 10.	do.			
Pile driver, YPD 1.	do.			
Heating scows, YHT 1, 2, and 3.	do.	1		
District tugs:				
YT 54.	New York yard.	9		Personnel No. 51.
YT 56.	do.	9		No. 52.
YT 61.	do.	9		No. 53.
YT 67.	do.	10		No. 54.
YT 81.	do.			No. 55.
YT 72.	Submarines, New London.	15		
Cayuga.	New York yard.	11		
Narkeeta.	do.	8		
Pentucket.	do.	11		
Floating workshops, Nos. 12 and 13.	do.			
Patrol vessels:			Edithia.	
Privateer.	District.	5		
Sanda.	Loaned to New York City.			
Unclassified:			Samsoet.	
Transfer.	New York yard.	6		
Nahant.	Loaned to New York City.			
FOURTH NAVAL DISTRICT.				
Coal barges: YC 136, 255, 256, 260, 301, 506, 541, 542, 543, 544, 545, 546, 547, 548, 551, 552, 570, 571, 572, 578, 579, 594, and 602.	Philadelphia yard.	None.		
Fueling barges, Nos. 11 and 12.	do.	None.		
Fuel oil barge, No. 22.	do.	7		
Water barge, No. 31.	Cape May Air Station.	None.		
Ferryboats and launches.			Patchogue.	
Floating derricks, Nos. 5, 30, and 45.	Philadelphia yard.	None.		
Ammunition lighters, Nos. 26 and 31.	do.	None.		
Ash lighters, Nos. 40 and 41.	do.	None.		
Freight lighters:				
No. 71.	Cape May.	None.		
No. 9.	Philadelphia yard.	None.		
Pile driver, No. 10.	do.	None.		
District tugs:				
Nausett.	Philadelphia yard.	8		No. 56.
Mudoc.	do.	8		No. 57.
Samsoet.	do.	8		No. 58.
Floating workshop, YR 10.	do.			
Unclassified.				Gen. F. Penn.
FIFTH NAVAL DISTRICT.				
Ambulance boats, YH 3.	Tug director.	3	YH 2.	
Coal barges, Nos. 261, 262, 263, 264, 265, 266, 267, 268, 270, 271, 272, 273, 282, 284, 286, 291, 293, 295, 303, 305, 310, 313, 317, 318, 319, 354, 431, 432, 434, 459, 486, 488, 501, 502, 576, 461, 462, 471, 474, 475, 476, 480, 481.		None.		N—

* Personnel charged shore station, submarines.

of district craft, showing location and personnel attached, Mar. 15, 1922—Continued.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
NAVAL DISTRICT—continued.				
6 barges, Nos. 3	.....	None.	.....
barges.....	.....	.....	YO 6; YO 7 (temporarily in sixth district).	
31.....	Tug director.....	7	YO 38 (assigned sixth district).	YO 19.
oring barge, YS 12.....	do.....	.....	.....
barge, YW 33.....	do.....	.....	.....
g derricks, YD 7, 36, 43.....	.....	.....	.....	YO 31.
boats and launches:				
avy yard.....	Norfolk yard.....	9	Just arrived from first district.	
.....	do.....	.....	Repairing.....	
munition lighter, YE	.....	.....	.....
t lighters:				
s. 56.....	Tug director.....	9	.....
s. 67, 74, 91, 113, 16, 118, 121, 123, 5, 106.	.....	None.	.....
iver, YPD 14.....	.....	None.	.....	Nos. 53, 58, 59, 60, 61, 69, 90, 109, 76, 83, 114, 137, 138, 139, 99, 101, 102, 103, 104, 105.
t tugs.....	.....	.....	.....	Tugs Nos. 76, 80, 83 and 47.
ivance.....	Norfolk yard.....	7	.....
rcules.....	do.....	7	.....
ssasoit.....	do.....	6	Bouker No. 2 (loaned to city of Norfolk).	
hawk.....	do.....	7	.....
cket.....	do.....	7	.....
obscot.....	Tug director.....	7	.....
hmeta.....	do.....	8	.....
comico.....	Norfolk yard.....	7	.....
g workshops, YR 7, and 17.	.....	None.	.....
vessels.....	.....	.....	.....	Bie & Schlott.
sified.....	.....	.....	.....	Clio.
NAVAL DISTRICT.				
arges:				
s. 340, 341, 349, 442, 456, 458, 535.	Charleston yard.....	None.	.....
39, 213, 335, 338	Marines, Parris Island.	None.	.....
barge, YCD 7.....	Charleston yard.....	None.	.....
barge, YO 38.....	Not yet arrived from fifth district.	.....	.....
barge, YW 9.....	Marines, Parris Island.	None.	.....
g derrick, YD 1.....	Charleston yard.....	None.	.....
s, Nos. 9 and 10.....	Navy yard.....	None.	.....
boats and launches,	Marines, Parris Island.	None.	.....
munition lighter, YE	Ammunition depot.....	None.	.....
ter, YA 29.....	Navy yard.....	None.	.....
t lighters:				
s. 176.....	do.....	None.	.....
s. 84.....	do.....	None.	.....
iver, No. 18.....	do.....	None.	.....
t tugs, Sebago.....	do.....	6	.....	Tugs, Nos. 46, 79.
g workshops, Nos. 1 and 16.	do.....	None.	.....
vessel, Clarinda.....	District.....	8	Marija.....	
THE NAVAL DISTRICT.				
arges:				
s. 87, 150, 151, 209, 4110, 43, 494, and 497.	.....	None.	.....	No. 232.

List of district craft, showing location and personnel attached, March 15, 1922—Cont

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale
FOURTEENTH NAVAL DISTRICT—continued.				
Fuel-oil barge, YO 21.....	Fuel depot.....	6		
Water barges:				
YW 10.....	Naval station.....	3		
YW 15.....	do.....	1		
Floating derricks, YD 25, 53.....	do.....	None.		
Ammunition lighter, YE 36.....	Now being converted from coal barge.	None.		
Ash lighters, YA 48, 49.....	Naval station.....	None.		
Freight lighter, YF 153.....	do.....	None.		
Floating pile driver, YPD 16.....	do.....	None.		
District tugs:				
Delaware (SP 467).....	Submarines.....	10		
Tug No. 49.....	Naval station.....	7		
Tug No. 50.....	do.....	7		
Motor tug No. 90.....	do.....	3		
Motor tug No. 93.....	do.....	4		
Garbage lighter, YG 11.....	do.....	None.		
Torpedo testing barge, YTT 3.....	Submarines.....	28		
Unclassified Hermes.....	Aviation.....	None.		
FIFTEENTH NAVAL DISTRICT.				
Fuel-oil barges:				
YO 11.....	Submarines.....	7		
YO 32.....	do.....			
SIXTEENTH NAVAL DISTRICT.				
Coal barges, YC 145, 146, 147, 175, 177, 178, 180, 181, 182, 183, 185, 238.....	Naval station, Cavite.....	None.		
Water barge, YW 19.....	do.....	10		
Floating derricks, YD 16, 19, 47, 56.....	do.....	None.		
Dredge, YM 4.....	do.....	None.		
Ferry boats and launches:				
Callao.....	do.....	24		
Working launch:				
No. 681.....	do.....			
No. 682.....	do.....	6		
No. 683.....	do.....	10		
No. 684.....	do.....	10		
No. 685.....	do.....	10		
No. 687.....	do.....			
Ammunition lighters:				
YE 7.....	Naval magazine.....			
YE 8.....	Naval station, Cavite.....	10		
Ash lighters, YA 37, 52, 59.....	do.....			
Freight lighter, YF 5, 6, 17, 21, 34, 35, 36, 38, 56, 162.....	do.....			
Floating pile driver, YPD 17.....	do.....			
Mud scows, YMD 1, 2, 4, and 6.....	Naval station.....	None.		
District tug:				
Wompatuck.....	District.....	39		
Bataan.....	do.....	8		
Barcelo.....	do.....	5		
Christine.....	Com. tender.....	6		
Iona.....	Naval station.....	6		
Mercedes.....	do.....	5		
Motor tug No. 92.....	do.....	5		
Unclassified:				
Advantage base lighter, Nos. 1, 2, 3, and 4.....	do.....	None.		
Power floats, Nos. 24 and 25.....	do.....	None.		

* Charged against shore station submarines.

* Charged against shore station submarines.

† On temporary duty.

Secretary DENBY. We have cut out a hospital ship, the *Birmingham*, the *Chester*—

Mr. KELLEY (interposing). I doubt whether you should cut out a hospital ship.

Secretary DENBY. We cut out a hospital ship; we cut five cruisers; we have cut out a number of ships of military value, and we keep only those—

Mr. KELLEY (interposing). What I mean is that what you have taken out would not materially change this figure.

Captain WILLIAMS. It would not have any effect on it one way or the other.

Admiral COONTZ. It would to this extent, that there would be a number of stations go out of commission.

Captain WILLIAMS. Unless the ships go out of commission it does not affect it; they contain no personnel whatever; the 1,500 we are talking for are men to man objects that contain no personnel on them until we put them on. I think your difficulty is in the understanding of the word "vessel"; most of those are barges loaded with coal to save storage, and they are tied up to a dock with no men on them.

Mr. KELLEY. There is about \$1,000,000 worth of personnel.

Captain WILLIAMS. I can give you the number of men that have been on them and you can estimate how much of that is a personnel charge.

Mr. KELLEY. Suppose you collaborate with Admiral Coontz in putting on the number of men who are on now and the number you want next year, and then we will have the whole thing.

ALLOCATION BY NAVY OF 50,000 MEN FOR SEA DUTY.

Secretary DENBY. I would like to say further, in connection with your statement, that we made these cuts and furnished you this list this morning in answer to a purely hypothetical question.

Mr. KELLEY. Not so hypothetical.

Secretary DENBY. It was hypothetical because you said, "commit certain ships and then see what you can do with the rest." We followed your directions, but this is not what the Navy Department would do if it had more men. We would not distribute the personnel in this way, but we have distributed the personnel according to your specific request. It was purely a hypothetical question, and in answer to that hypothetical question we have given you this statement, if the Congress gives us this number we will have to determine what to do with them.

Mr. KELLEY. We would not undertake to operate the Navy; that is the certainty.

Secretary DENBY. But that does not mean that we would allocate personnel as your hypothetical question appears to compel us, but we would allocate it—

Mr. KELLEY (interposing). I do not think anybody has confused Secretary, Admiral Coontz, or anybody else.

Secretary DENBY. I do not want the Congress to understand that this is what we wish to do—that is, because we have filed a statement

in response to a table that you asked us to make based upon certain hypothetical things. You said, man the battleships at full complement, man the destroyers at full complement, man the submarines at complement, and then use the rest of the personnel as best you can. That was purely hypothetical. We did it, but that is not the way the Navy Department, if given 50,000 men, will distribute the 50,000 men.

Mr. KELLEY. That is a matter for you entirely.

Secretary DENBY. It was a hypothetical question only.

Mr. KELLEY. What we wanted to do was to know what you would do with 50,000 men if they were kept in commission and we would naturally expect you to keep in commission that part of the Navy which was of some value for the national defense.

Colonel ROOSEVELT. Which, in your opinion, would, but not in opinion of the Navy.

Secretary DENBY. You did not give us any option; you told to man certain ships.

Mr. KELLEY. There is no question about that.

Secretary DENBY. Your question appears in the record and I do not attempt to repeat it, but I will answer that in a letter this afternoon.

Admiral COONTZ. You want us to take the list on page 326 and opposite each one whether there is any personnel on board and if personnel is needed for next year. Is that correct?

Mr. KELLEY. I would not say that, but I would like to know the facts are about this \$5,000,000 expenditure charged up to districts. If those craft are afloat I would like to know how men are needed for those craft.

Admiral COONTZ. I call on Supplies and Accounts to furnish figures because they spent the money; I never knew about it they brought it out in this table. A part comes from miscellaneous a part comes from C. and R.; and a part comes from every appropriation. I want them to specifically tell what that money is for, and in the meantime I will go down that list ship by ship and show you whether there is anybody aboard and what is needed next year. I have what is aboard each one right now but I cannot give you complete data.

Mr. KELLEY. Mr. Byrnes, have you any questions to ask?

Mr. BYRNES. As I understand, you started with a hypothetical question before you, in which the chairman laid down a premise for manning the battleships, destroyers, and submarines, and with that premise you have distributed the balance of the money you would distribute them if that were demanded of you. The contention is that if 50,000 men were allotted you would not distribute them as you have set forth in this statement at all, but would distribute them in a different manner entirely?

Secretary DENBY. It would be within the province of the department to do what it could and make the best use of the men allotted, but I did not want the statement to go to Congress that we can man the battleships, destroyers, and submarines with that number.

BRANCHES OF SERVICE TO BE LEFT OUT BY SUGGESTED ALLOCATION OF
50,000 MEN.

Mr. BYRNES. Why do you believe that would be an insufficient number, as indicated by the chairman?

Secretary DENBY. Because it would leave Americans all over the world unprotected, to begin with; it would strike out the Yangtze patrol; it would strike out the special service squadron.

Mr. BYRNES. Why? Do you mean you would not have a sufficient number of men left after manning the vessels indicated by the chairman to keep these other ships in commission?

Secretary DENBY. The vessels were indicated by the chairman, together with their auxiliaries; he said to put 18 battleships, 103 destroyers, and 84 submarines in full commission with the necessary tenders and other auxiliaries, and then see what you have left, and use them as far as they will go, but when we had done that we had nothing left for the special service squadron in South and Central America; we have nothing left that would be of service in the Yangtze patrol.

Mr. BYRNES. How many did you have left after manning the ships indicated by the chairman?

Secretary DENBY. None whatever.

Mr. BYRNES. I have not been over the list carefully but I thought you had indicated personnel for some other ships than the battleships, destroyers, and submarines.

Secretary DENBY. Oh, yes; but they can not operate without auxiliaries; they have got to have certain auxiliaries in order to make a fighting fleet.

Mr. KELLEY. The auxiliaries were provided for?

Secretary DENBY. No; we have cut the auxiliaries all to pieces.

SHIPS CUT FROM LIST BECAUSE OF SUGGESTED ALLOCATION OF 50,000 MEN.

Mr. KELLEY. What have you cut?

Secretary DENBY. We have cut the cargo ships, for instance. We have been reading the list of what we took out. We have one repair ship, for instance, of the utmost value, incalculable value, that is to go; we have cut one store ship of very great value; we have cut three oilers, three cargo ships, and so on.

Mr. KELLEY. Let me ask you this question—

Secretary DENBY (interposing). We cut 27 submarines; we have cut the Eagles; we have cut the number of subchasers, and we have cut the number of gunboats.

Mr. KELLEY. We know what you have cut.

Mr. BYRNES. Was the cutting of the personnel on those ships due to the fact that you have increased the personnel on your battleships over and above the complement now upon those ships?

Admiral COONTZ. No.

Mr. BYRNES. In allocating the personnel, in response to the request of the chairman, have you increased the personnel upon the battleships over and above the number of men now upon those battleships?

Secretary DENBY. Yes; we have; and we have done so because—

Mr. KELLEY (interposing). In other words, you put 3,000 more men on your battleships than you have now and that 3,000 would more than take care of your Yangtze patrol?

Secretary DENBY. We have followed the chairman's question exactly without the slightest change. He gave us the number of battleships and told us to put a full complement on them, and that is what we had to do.

Mr. KELLEY. What you want to do, Mr. Secretary, is to reduce the number carried on some of these battleships and keep these Yangtze patrols in.

LIMITED COMPLEMENT FOR SHIPS.

Secretary DENBY. I do not think it is possible. I want to say right here that some of our ships to-day are sick ships.

Mr. KELLEY. You say they are sick ships, with 1,100 men on board?

Secretary DENBY. Yes; I mean to say exactly that. You and I are not entirely in a position to controvert the naval men and say they are not telling the truth.

Mr. KELLEY. I can summon naval officers who do not agree as to your number of men necessary on the ships.

Secretary DENBY. I do not think you can summon any competent captain or admiral of the United States Navy who will say that the battleships are overmanned with the figures we ask. I mentioned the other day, while I knew it was unintentional, that this hypothetical question would be referred to on the floor and would be held up as a trap and have the Navy Department saying that with 50,000 men we can man those ships and have a competent Navy.

Mr. KELLEY. Mr. Secretary, the Navy Department wants to keep the fighting ships of the Navy in readiness for war, in case we should have war, and I asked you to put on paper the number of men it would take to keep those ships and their necessary auxiliaries in fighting condition, and according to your judgment it something like three or four thousand more than you have on now, and then you come in here this morning and say it is a trap.

Secretary DENBY. Pardon me; I said the other day that quite unintentionally it might be used to confuse the House.

Mr. KELLEY. How could it be considered as a trap?

Secretary DENBY. By simply holding that up and saying, "This is what the Navy Department says it needs," but that is not what the Navy Department says it needs.

Mr. KELLEY. I simply asked you, Mr. Secretary, to segregate all you would never use for defense purposes.

Secretary DENBY. I will read the question.

Mr. KELLEY. I know what the question was, but I am saying it in different language; it is in the record once, and you need not put it in again. I am trying to get your mind clear as to what was in my mind.

Secretary DENBY. I have the question exactly, and all I want to get clear is the hypothetical question, which we have answered to the very best of our ability.

Colonel ROOSEVELT. If I understand what the chairman just said, he said that he requested the Navy Department to furnish a list of

the ships that it considered absolutely necessary for defense, with the complement necessary; was that it, Mr. Chairman?

Secretary DENBY. No; that was not it.

Mr. KELLEY. I told you I wanted to keep the 18 battleships in commission which I have seen in the newspapers are the treaty Navy; that I wanted the 103 destroyers, which are the treaty destroyers; that I wanted the 84 submarines which would properly be retained as the treaty submarines, and all the necessary tenders, oilers, tankers, and all that would naturally go with those, and then this other stuff at the bottom of the list, like subchasers, eagles, and all that, could take pot luck if there were any men left.

REALLOCATION OF 50,000 MEN UPON BASIS OF SHIPS ACTUALLY REQUIRED BY NAVY
IRRESPECTIVE OF TYPE.

Admiral, we had to leave rather abruptly on account of the vote. I rather think it would be helpful, after thinking it over, to the committee to have in addition to the statement which appears in the record in answer to the distribution of the men that I requested last week, a distribution of 50,000 men for the ships of the Navy, using your own judgment entirely as to how they should be distributed.

Admiral COONTZ. Fifty thousand men afloat?

Mr. KELLEY. Yes, sir.

Admiral COONTZ. All right; I will take that message to the Secretary.

Mr. KELLEY. I should like to have Mr. Reed clear up the naval district situation, about which there was some misunderstanding and some difficulty before noon. I presume the better plan would be to cut out practically everything that has gone before.

METHOD OF ACCOUNTING NAVAL DISTRICT EXPENDITURES IN CONNECTION WITH DISTRICT CRAFT.

Admiral COONTZ. I would prefer not, because I took the trouble to find these 40 or 50 things that the money is spent for.

Mr. REED. The statement submitted by Admiral Coontz is correct, and all I want to submit in explanation is the reason in general which leads up to the assembly of charges in this way. We assign an accounting number to each ship on the naval list and to each shore naval activity, and wherever any payments are made those charges are shown and the charges against the particular ship or station are assembled in our annual report. For the naval districts there were certain classes of expenditures covering certain floating equipment, barges and lighters, not ships, or yachts, or patrol activities of any kind, certain small activities on shore, and the expenses at district headquarters and various other miscellaneous places to which no specific numbers are assigned, and they were assembled as the expenses of the naval districts. At present those expenses are practically all or the greater part of them are expenses not in connection with the fleet afloat.

Mr. KELLEY. And the four million and some odd spent in 1921 included every expense for the naval district organization?

Mr. REED. That is correct.

Mr. KELLEY. Is there any probability that some of these craft in estimating the personnel might be counted twice?

Mr. REED. Craft carried in this list of barges and lighters is not of such a nature that it could be found in the computation for personnel of the fleet.

Mr. KELLEY. For the navy yards?

Mr. REED. Yes, sir.

Mr. KELLEY. Then, it is possible to put in the hearings a list of the craft assigned to the naval districts that are not assigned to the navy yards?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You will do that?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. With the number of men?

Admiral COONTZ. I will be glad to. I will state further, as budget officer, I shall insist that for the expense hereafter these things shall be separately allocated.

Mr. KELLEY. That is the way to do it.

Admiral COONTZ. I think we can do it.

Mr. KELLEY. These small craft are really shore activity craft?

ALLOCATION AND USE OF DISTRICT CRAFT AT NAVAL STATIONS.

Admiral COONTZ. The situation is this: At the big stations like New York, Norfolk and San Francisco we give these craft to the district commandant who in every case, except two or three, is the commandant of the yard. A navy yard gets so many, one if necessary, and so on. When it comes to a big station where we have quite a number and a number of calls we have found that the cheapest and most economical way was to have a sort of pool, so that the district commandant has them all right there. If, for instance, Iona Island, near New York, wants something done, he sends one up. If Fort Hamilton needs one he dishes one out. Hereafter if I want to know exactly how much for what we might call the district proper, which will be very slight, and how much for the tugs, barges, rifle targets, and the thirty-odd things, then, I think, it will be perfectly clear to the committee and distinctly better for us.

Mr. KELLEY. At the navy yards the little boats are carried as a part of the shore establishment?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. If they might carry some water out to a ship, that is just a shore activity and carried as such?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Those men are many times civilians, perhaps mostly?

Admiral COONTZ. Very rarely now. Most of them are bluejackets and the number will be mentioned by Captain Williams when he comes to the shore establishments.

Captain LEUTZE. A tug at a navy yard or a water barge is listed as a ship of the navy, but it is shown under the proper name of the ship in Table 4 of Paymaster General's Report.

Mr. KELLEY. We have now had furnished us by Admiral Coontz a list of all the tugs that are to go with the fleet?

Captain LEUTZE. Yes, sir.

FUNCTIONS OF DISTRICT CRAFT.

Mr. KELLEY. There will be same other tugs, of course, that are attached to the navy yards?

Captain LEUTZE. Yes, sir; harbor work, as they call it.

Mr. KELLEY. Where they serve the yard primarily and not the fleet?

Captain LEUTZE. They serve the yard and also the ships as they come into the yards. For instance, in docking a ship, they may have to use as many as 14 tugs.

Admiral COONTZ. It is primarily yard service; they stay there all the time and do not go to sea.

Mr. KELLEY. The tugs that we have already included in the list are those that go around with the fleet to be used for towing purposes or mine-sweeping purposes?

Admiral COONTZ. Yes, sir; they are the ones that move from place to place. The others are nonseagoing tugs—they never go to sea except in an emergency.

Mr. KELLEY. Are the navy-yard tugs manned by civilians or by enlisted men?

Admiral COONTZ. Enlisted men.

Mr. KELLEY. You are certain about that?

Admiral COONTZ. Absolutely.

Mr. KELLEY. Is there anything else you would like to say about the Navy afloat?

Admiral COONTZ. No, sir; nothing further.

DISTRIBUTION OF NAVAL PERSONNEL ON SHORE DUTY BASED ON COMPLEMENT OF 15,000 FOR THIS PURPOSE.

Mr. KELLEY. Have you a distribution of the Navy ashore?

Captain WILLIAMS. I have a distribution in accordance with your request of the department on Friday to distribute 15,000 men as they could be distributed with 50,000 men afloat and 15,000 men ashore.

Mr. KELLEY. What is the latest date as of which you have a distribution of the shore forces?

Captain WILLIAMS. As they actually existed?

Mr. KELLEY. The last available date.

Captain WILLIAMS. The last complete distribution, January 1 of this year.

MEN ON SHORE DUTY JANUARY 1, 1922.

Mr. KELLEY. Please give us the details of the distribution on January 1.

Captain WILLIAMS. District vessels, 3,429; receiving ships, 1,034; receiving barracks, 676; yards and stations, 2,099; training stations and trade schools, 2,500; hospitals, 1,637; prisons, 100; communications, 1,635; aviation, 2,100; ammunition depots, 602, and recruiting, 900.

Mr. KELLEY. That makes a total of your shore establishments of how many?

Captain WILLIAMS. The numbers I have given are the required numbers.

Mr. KELLEY. Those are the numbers required?

Captain WILLIAMS. The number of men required on January 1.

Mr. KELLEY. Based on a total personnel of 106,000?

Captain WILLIAMS. Yes, sir.

ACTUAL NUMBER REQUIRED FOR SHORE DUTY.

Mr. KELLEY. Can you give us the actual numbers corresponding with those who were in actual service on that date or on any date? Please go right down through the list again.

Captain WILLIAMS. District vessels, 3,352; receiving ships, 124; receiving barracks, 704; yards and stations, 1,208; training stations, 1,589; hospitals, 1,978; prisons, 23; communications, 1,228; aviation, 2,754, plus 52 under instruction; ammunition depots, 605, plus 22 under instruction at ammunition depots; and recruiting, 709.

MEN ON DUTY AT TRADE SCHOOLS AND TRAINING STATIONS.

Mr. KELLEY. What about the trade schools?

Captain WILLIAMS. Instructors, 443, and 1,334 under instruction.

Mr. KELLEY. What about the 1,589 that you gave before?

Captain WILLIAMS. Those are the training stations, that is different.

Mr. KELLEY. How many for the trade schools?

Captain WILLIAMS. Four hundred and forty-three instructors, 1,334 under instruction. On January 1 we had 1,589 operating men at training stations and 3,976 under instruction. We had in addition to that, trade schools in which we had 443 instructors and 1,334 under instruction.

Mr. BYRNES. You did not give the figure of 3,976; what is that?

Captain WILLIAMS. Apprentice seamen under instruction at training stations as distinguished from men under instruction at trade schools.

Mr. BYRNES. What about the 3,976?

Captain WILLIAMS. They will have to come out if we have a 50 man navy.

Mr. KELLEY. I want to get the number of men you actually had in these various activities as of some certain definite date.

Mr. BYRNES. What are the 1,589 that you mentioned?

Captain WILLIAMS. The operating force at the training stations.

Mr. BYRNES. And the 443?

Captain WILLIAMS. The operating force at the trade schools.

Mr. BYRNES. And the 1,334?

Captain WILLIAMS. They are under instruction at the trade schools.

Mr. BYRNES. They should not be in this list?

Captain WILLIAMS. Yes, sir.

Mr. BYRNES. They should be in the list under training stations!

Captain WILLIAMS. No, sir; that is a different figure.

Colonel ROOSEVELT. The trade schools and apprentice seamen are all different people entirely. They overlap, but are not personnel.

NUMBER OF MEN IN TRAINING AND THEIR DESIGNATION.

Mr. KELLEY. Please give the number in training.

Captain WILLIAMS. There are several forms, the trade schools, where we have machinists and other mechanics. Those are represented by this figure of 1,334. There are training stations where we train men for other activities and those are represented by the figure 3,976.

Mr. KELLEY. What about the 220 men under ammunition depots?

Captain WILLIAMS. They are certain men specially instructed in torpedoes and mines and ordnance who are carried under this sub-head of ammunition depots.

Secretary DENBY. Are they men under instruction?

Captain WILLIAMS. Under instruction; they are men learning the mechanism of the mines and other ordnance gear.

Mr. KELLEY. You have 1,589 that are the operating force of the training stations, is that right?

Captain WILLIAMS. 1,589.

Mr. KELLEY. You have 443 that are the operating force of the trade schools?

Captain WILLIAMS. Right.

Mr. KELLEY. Those two together will represent the number of men required as instructors and the operating force?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That makes 2,032?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And the hospitals, how many?

Captain WILLIAMS. 1,978.

Mr. KELLEY. That is the operating force in the hospitals?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Are there 2,754 in the operating force of aviation?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Take out the 52 there and the 220 out of ammunition depots. Those are the number of students there and the number of students that you had in the trade schools that you gave a while ago.

Captain WILLIAMS. 1,334.

Mr. KELLEY. That makes 1,606 under training that are not apprentice seamen.

Captain WILLIAMS. There is another item carried as miscellaneous, for which we have 107 men. That includes War College, Naval Supply Depot, activities in Europe and China, naval attachés, communications, etc. The total is 15,985.

Mr. KELLEY. Following this classification here, 15,985 is the number that you had on January 1, 1922?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. For this particular service?

Captain WILLIAMS. Yes, sir.

CLASSIFICATION OF MEN REQUIRED ON SHORE DUTY, BASED UPON NAVY OF 65,000 MEN.

Mr. KELLEY. Now, have you made a calculation as to the number that would be required on the basis of 50,000 men afloat?

Captain WILLIAMS. On the basis of 50,000 men afloat and 15,000 men on shore.

Mr. KELLEY. Let us have that under the same item with district vessels.

Captain WILLIAMS. For district vessels, 1,500.

Mr. KELLEY. For receiving ships?

Captain WILLIAMS. Receiving ships and barracks, 750.

Mr. KELLEY. For receiving barracks?

Captain WILLIAMS. I have bunched them together as for both.

Mr. KELLEY. Training stations and training schools?

Captain WILLIAMS. For training stations I have 280, and training schools, 500; or 780 altogether.

Mr. KELLEY. Navy yards and stations?

Captain WILLIAMS. 1,100.

Mr. KELLEY. Hospitals?

Captain WILLIAMS. 1,645.

Mr. KELLEY. Prisons?

Captain WILLIAMS. 25.

Mr. KELLEY. Communications?

Captain WILLIAMS. 1,305.

Mr. KELLEY. For aviation?

Captain WILLIAMS. 1,070.

Mr. KELLEY. That does not include any under training?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Ammunition depots?

Captain WILLIAMS. 425.

Mr. KELLEY. For recruiting?

Captain WILLIAMS. 250.

Mr. KELLEY. For miscellaneous?

Captain WILLIAMS. I have not put miscellaneous down.

Mr. KELLEY. It is probably about the same as the other carried 170 in the other.

Captain WILLIAMS. We will call it zero, because it is included in others.

Mr. KELLEY. What will that foot up?

Captain WILLIAMS. 10,450. For replacements, 7 per cent of men, or 4,550.

Mr. KELLEY. You have not put down tenders yet, but they are included in the 10,450?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. How much were they?

Captain WILLIAMS. 1,600. I am not certain that you get replacements on the 1st of January.

Mr. KELLEY. How many replacements were there on J

Captain WILLIAMS. 7,833 plus 1,062 in transit.

Mr. KELLEY. That was based on a personnel of how many on January 1?

Captain WILLIAMS. On a personnel of 100,999.

Mr. KELLEY. Did that include apprentice seamen?

Captain WILLIAMS. Yes, sir; that includes everybody.

Mr. KELLEY. What would that be—about 7 per cent?

Captain WILLIAMS. Yes, sir; 7 per cent plus men in transit.

Mr. BYRNES. I want to know whether in the last list of figures you included any men under training?

1 WILLIAMS. None whatever, except the 500 at trade schools.
 RNEs. Are they under instruction or are they operators of schools?

n WILLIAMS. I put down 500 at the trade schools, because l out we could allot about 500. We will probably use some unction and some would be receiving instruction, the total eing 500.

try DENBY. You have not duplicated that anywhere?

n WILLIAMS. No, sir.

METHOD OF COMPUTING 7 PER CENT REPLACEMENTS.

RNEs. I want to know what you include in replacements

n WILLIAMS. There are several ways of getting at it.

RNEs. Take the shortest.

n WILLIAMS. It is a personnel study.

RNEs. How do you arrive at the 4,550?

n WILLIAMS. I got the 4,550 by taking 7 per cent of the lowed. The 4,550 is simply an estimate.

ELLEY. The 7 per cent is not an estimate, but it is based on erience of this year, is it not?

n WILLIAMS. It is based partially on experience. The 7 per ot a fixed percentage, but it varies with the change in the of the personnel. Every time the number of the person-anged the replacement varies from the normal 7 per cent. lustration, if you have 100,000 men for this year and on ou change it to 50,000 men, you are still compelled to carry hospitals, prisons, etc., a large personnel for the ensuing he persons sick or in prison belong to the 100,000 person-ou ask how many men there are in the Navy, you must par-specify at what time, because otherwise you will create lderstanding. Suppose we say we have 100,000 men in the : you ask how many men there are in the Navy; you must he hour and the day that you desire that information, be-herwise it changes by quite an appreciable percentage. If t that information in that form, you can only get it two or onths later. The next proposition is to take the reports that ive from all over the world, from the Yangtse River to the ea, and put them together; and a very appreciable percent-tem will be late in the mail.

fore, your estimate to-day of the number of men we have in z is based or constructed in two ways: One would be to take ite census by radio, say, as of January 1, of this year, taking port that comes in of deaths, desertions, etc., and applying he census. You will find, of course, that there is a difference figures, and that difference is very much larger than you elieve. I have a list here of a large group of replacements erhaps, might explain the meaning of that word. I have 395 men who might be called replacements. Of that num- ar as we could go into the minute details, 1,642 were on re-ships. Now, a man's cruise is up day after to-morrow, and sails to-day, and there are two man-days that you have got out for, or one man for two days. You can not transfer him

to another ship, but you must get rid of him. We had in 1918 2,258, and of prisoners we had 1,339. We had delayed replacements in transit, which are difficult to separate at the moment, amounting to 4,062. We have been accustomed from time to time to the sum of these things a percentage, and 7 per cent is an estimate we could arrive at. We expect that instead of 7 per cent it will probably go up to 10 per cent for this reason, that a large number of men enlist in any one year for four years, at the end of four years, a large number of men will be discharged.

These men will from time to time pass through the different stages of receiving ship, discharge, leave, etc., which will increase that percentage of safety due to the unaccountable errors in numbering personnel. We calculate that the percentage of replacements may vary from 7 per cent to as high as 11 per cent, but at the moment we have it at 7 per cent.

DIFFICULTY OF OBTAINING ACCURATE REPLACEMENTS.

MR. KELLEY. How do you fix the maximum at 11 per cent, upon what do you base that?

CAPTAIN WILLIAMS. We have had that experience from time to time. These figures are not always capable of abstract mathematical proof. Suppose the report of enlistments on the Pacific coast is in the mails. We get it eventually, but, in the meantime, we carry an error, and a part of that error comes into this item of replacements. In other words, it is impossible with human nature as large as this and scattered all over the world to say that on a given date we will have a given number of men actually engaged on a given duty. There are men being discharged, there are men training, there are men on one set of books, and there are men on another set of books; there are men dying suddenly, there are men lost, there are desertions. It is those things that make this percentage which we call a factor of safety.

MR. KELLEY. Do you figure that you want replacements for trade schools and training schools?

CAPTAIN WILLIAMS. I do not think that figuring on details of that sort would be very profitable. I think that the figure as to replacements is one which must be applied to the total enlisted personnel in the service. Whether it comes from trade schools, from recruits from ships, or from what source, it is a calculation which I do not think would be sufficiently accurate to be of much value. In our final records, in our final census, and in our final application of personnel we always find this state of affairs. I do not want to bother you with a statement of the efforts that we have made to bring out this 7 per cent, but it requires counting and recounting, checking and rechecking, and it is always about that size. If you could take a census of every man in the Navy at noon to-day, those replacements probably would not get here for two days.

EFFECT OF REPLACEMENTS.

MR. KELLEY. What you are saying is this, that if you had 100 men in the Navy, all told, 7 per cent of them would not be available for duty at any particular time; that some of them would be transferred

erring from one ship to another. Some of them would be waiting or a receiving ship, to go on board; some would be awaiting a receiving ship to be discharged; some would be sick; some would be in prison, etc., and therefore there would be 7 per cent of the men that would not be working at any particular job for the Government all the time.

Captain WILLIAMS. That is practically correct. I think it would be more accurate to say that there would not be that full number on completed details. None of those men would be working for the Government. A man passing through a receiving ship, for example, might be working for the Government; a man carried among the prisoners might be working for the Government on that day, and a man carried in the hospital might be doing work for the Government. But that is the wastage, and I think experience has shown that that is the best way to carry it in order to keep our details or mathematics correct.

Mr. KELLEY. Then, with 65,000 men, you would need 7 per cent of that number for replacements?

Captain WILLIAMS. I do not think 7 per cent would cover it, but I put it down as 7 per cent. The reason I say that is because in the fiscal year to which this number refers we will have, we will say, 50,000 discharges, and 20,000 of those men will reenlist. That means 30,000 men that must be handled in one way or another from here to here and back again.

Mr. KELLEY. Of course, you have that element in this year's figures and in last year's figures?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Your experience of last year shows that was not the case.

Captain WILLIAMS. No, sir.

NUMBER OF MEN DISCHARGED AND REENLISTED LAST YEAR.

Mr. KELLEY. How many did you discharge and take back last year?

Captain WILLIAMS. Last year was a very peculiar year.

Mr. KELLEY. I remember there were 43,000 men going out, and you expected to get back a large number of them.

Captain WILLIAMS. We started with 120,000, and gave discharges beyond that. That made it impossible to tell how normal conditions were. We had to say to those men, "You can have your discharge when you want it."

Mr. KELLEY. I remember very well that you made the argument last year that the number to be discharged because of their two-year enlistments would be tremendously great, and that the element of doubt as to how many you would get back made it so uncertain that it was a very serious problem for you.

Captain WILLIAMS. The argument was subsequent to the decision, and the decision was based upon the number of discharges.

Mr. KELLEY. You remember that you asked for a tremendous number of apprentice seamen last year, or for twelve or fifteen thousand, but you never had any such number this year, did you?

Captain WILLIAMS. That was my decision as to how many should have.

Mr. KELLEY. You guessed mighty bad last year.

EFFECT OF SICK UPON REPLACEMENTS.

Referring to this element of replacements, how serious would be if a ship that had 100 men on her lost seven of them?

Captain WILLIAMS. That is not the way it would work.

Mr. KELLEY. No; because it would not work as badly as that.

Captain WILLIAMS. It would not be in any sense proportionate.

Mr. KELLEY. It would not be as many as that.

Captain WILLIAMS. It might be many times that.

Mr. KELLEY. How do you make that out?

Captain WILLIAMS. The replacements include the sick.

Mr. KELLEY. The number of sick in hospitals is a negligible number almost compared with the total number. The entire sick is only 2 per cent, and you carry the boys around on the ship who need to be taken ashore. They are pretty sick before you take to a hospital. If he jams a finger, you take care of him on ship until he gets well, but if it comes down to some disease in which you want to put them in a hospital you take them off the ships, and you have replacements to fill in there.

Captain WILLIAMS. The proportion in any station will be different from the personnel of the whole.

Mr. KELLEY. The fact is, with these ships sailing about and their duties covering quite a wide area, if a man gets sick you do not think of replacing him, would you?

Captain WILLIAMS. It depends on how sick he was and how he was sick.

Mr. KELLEY. If he gets sick for a few days you would not think of replacing him?

Captain WILLIAMS. But suppose he gets sick for two years; there is a replacement necessary, is there not?

Mr. KELLEY. Yes; but, as I say, the number sick for any length of time is so small that you probably would not bother filling places.

Captain WILLIAMS. It is not negligible.

Mr. KELLEY. You have commanded a battleship in your time, have you not?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What ship did you command last?

Captain WILLIAMS. The *Kansas*.

Mr. KELLEY. How many men were on the *Kansas*?

Captain WILLIAMS. We had 100 at one time.

Mr. KELLEY. I mean when she was in full commission.

Captain WILLIAMS. One thousand one hundred.

Mr. KELLEY. How many men would represent the sick on the ship at any time?

Captain WILLIAMS. According to these figures, let us say

Mr. KELLEY. Suppose you had to get along on the *Kansas* with only 100 men; you would never know the difference until somebody put the papers in front of you, would you?

Captain WILLIAMS. But if I had to stay 25 short of the complement for a year I would certainly notice it.

Mr. KELLEY. But, as a matter of fact, you wait until you get into it, you take the thing easy, and if the Secretary wishes to discharge 25 men, you do not count 25 men when you have a complement of 1,130?

Colonel ROOSEVELT. But is it not true that if you do not take care to keep 7 per cent you automatically reduce the complement 7 per cent the way through?

Mr. KELLEY. That is what I am saying.

Colonel ROOSEVELT. And if the Navy says that it has a minimum complement that it ought to be operated with, it certainly has not brought into consideration reducing an additional 7 per cent.

Mr. KELLEY. I understand perfectly well that if Admiral Coontz, who is a good officer and wants everything right up to shipshape, is asked to have 1,200 men on shipboard he does not want 1,175, what I am saying is that if he had 1,175, unless somebody told him, he would never notice that condition.

Captain WILLIAMS. Why 1,175 when we are talking about 1,130?

Mr. KELLEY. I think that is true, that there would be, between the judgment of you and some other captain that I could easily pick more difference than 25 as to how many you need.

Captain WILLIAMS. I certainly hope there would be.

Mr. KELLEY. When I first came here that was a conundrum to me, but now it is a commendation, to find officers who do not agree; but they do not agree any more than lawyers, doctors or anybody else. Admiral COONTZ. If it is not one set of them sick it is another, that is what runs along all the time; somebody is sick all the time, but it is not always a case of those fellows getting well and somebody else getting sick.

Mr. KELLEY. But when they get well they come back.

Captain WILLIAMS. Suppose they do not get well?

Mr. KELLEY. They are not all sick on one ship at one time.

Secretary DENBY. It is something like the turnover in a factory.

Mr. KELLEY. Except that no business in the world has a lot of men hanging around waiting for somebody to get sick.

Secretary DENBY. No; but every business man can pick up all the men he needs in normal times to make his replacements. If you ask me about a factory, where they have quite a number of men employed, how many men they have out of active business and whose places they have to fill, you will find it far exceeds this.

Mr. KELLEY. Captain, you are a good office man as well as a good sailor, is that right?

Captain WILLIAMS. No.

Mr. KELLEY. You have an office down here?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Are you carrying 7 per cent or 10 per cent excess in your office force for the purposes of replacement?

Secretary DENBY. We are carrying them in the great Navy.

Mr. KELLEY. No; you have hundreds of men in the offices here to do certain jobs, and I want to know whether you are carrying enough men so that you can fill the place of everybody who gets sick or goes away for a few days—do you do that?

Captain WILLIAMS. Those men are grouped in one building.

Mr. KELLEY. Do you do it?

Captain WILLIAMS. No; those men are grouped in one building while the men I speak of are grouped from the reaches of the Yangtze River to the Black Sea, and that is the difference.

Mr. KELLEY. It is all nonsense, Captain, for you to try to make believe that you put a man on shipboard every time anybody gets sick.

Captain WILLIAMS. No; but we put him on the quota——

Mr. KELLEY (interposing). You do not do anything of the sort.

Captain WILLIAMS. We put him on the quota, and you will find that the personnel laws of Congress for the last hundred years have taken this very figure into account.

Secretary DENBY. I would like to make one statement in regard to replacements. You are talking about the offices here in the department. Of course those replacements are made whenever they are necessary through the civil service.

Mr. KELLEY. Well, Mr. Secretary, you do not get my idea. You have a certain number of clerks in your department, and a certain percentage of them do not show up every day right along, and you leave those places empty for that day, that is all; you do not have another reservoir out of which you can get clerks; you go that much short, and you get along just as well, and you could go another 10 per cent short and get along just as well.

Colonel ROOSEVELT. No; you come to a breaking point there, also, you take the situation on board ship; we are counting on going short a certain number anyhow; that is what we are counting on, and that has already been taken into our calculations.

Mr. KELLEY. You can trust Admiral Coontz and these men with duty it is to have every man they need in any kind of an emergency to have the quota high enough so that you can stand, in time of peace, a little shortage of men getting sick now and then.

Colonel ROOSEVELT. Originally they might have had it in that shape but remember we have been hammering down that quota, and we have been working on it to skin it right down, and it is all in consonance with the Secretary's idea to cut down.

Admiral COONTZ. Take the battleships, where we reduce 5 per cent or more right along, take the destroyers with 10 per cent, and add 7 per cent on, and see where you are getting. The first thing you know you will get 1 man in 6.

Mr. KELLEY. We want the Navy to have enough men to man the fleet; there is no dispute between us on that. I have been heard about this replacement thing every year for a long time, and longer it goes the less it impresses me, although I know perfectly well what it is for.

Captain WILLIAMS. It is inherent to deal with human nature and human beings as distinguished from inanimate objects.

Mr. KELLEY. I do not think the Military Establishment in time of peace is so different from every other kind of establishment where you can have a reservoir of men out of which you can draw to fill vacancies that occur from day to day by reason of temporary absence.

Captain WILLIAMS. It is not temporary absence.

Colonel ROOSEVELT. But it depends on where you keep your establishment; in other words, if I have 100 clerks to do the job nec-

ere. I count on having a certain number sick and I have 103, or whatever it may be, so that I can keep the positions running at the same time. I do not have 97 as the figure which enters into my calculation if I am a good business man.

Mr. KELLEY. No; if you are a good business man you do not have an excess of clerks.

Colonel ROOSEVELT. No; not an excess; and I am not saying we have an excess.

Mr. KELLEY. If you are operating a business for the Government when I will admit that you do carry an excess of everything.

Colonel ROOSEVELT. No; not in the Navy Department.

SUBMARINE TENDERS.

Mr. KELLEY. This is all there is to this except the recruiting and the training school end of it?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And we had better take those up in detail when we take those in the bill.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Because there is no use of going over it twice.

Captain WILLIAMS. You had the shore-base tenders, 1,600 to start with.

Mr. KELLEY. I wonder whether the Secretary has any recommendation to make about those shore-base submarine tenders to-day?

Secretary DENBY. Yes; we have discussed those shore-base submarine tenders very fully; we had a total of 2,009 and we cut out 400.

Mr. KELLEY. Making a total of about \$1,600?

Secretary DENBY. Yes, sir.

Mr. KELLEY. Three thousand four hundred and eighty-two people to take care of boats that will require only 2,590 to operate them, when Admiral Robinson says that the orders are in the department that they should be operated only 20 per cent of the time. Is that right?

Admiral COONTZ. That is not correct.

Mr. KELLEY. When you have plenty of money that does not hold? Admiral COONTZ. Captain Day says that does not hold for the submarines.

Mr. KELLEY. That is what Admiral Robinson said about the submarines the other day.

Admiral COONTZ. I think Admiral Robinson was talking about something else.

Mr. CHAIRMAN. What happens to the submarine tender in time of war; where do the submarines get their supplies?

Captain DAY. The submarine tender goes to some safe anchorage and acts as the advance base from which the submarines can operate. In the late war we sent one to an Irish port and one went to the Azores and the submarines operated from there.

SUBMARINE PERSONNEL.

Mr. KELLEY. The only thing that I had in mind was this, that with the testimony here to the effect, generally speaking, that the submarine business is so difficult and hard on the men that you

find it inexpedient to keep them out much more than one-fifth of the time; why could not the crews with the greater complement of skilled men we have during the other four-fifths of the time, take care of the submarines?

Captain DAY. They do not stay in four-fifths of the time.

Mr. KELLEY. Why can not you keep them in?

Captain DAY. We can keep them in all the time if necessary.

Mr. KELLEY. If you do not need them in time of war, why need them in time of peace?

Captain DAY. The crews of the submarines do a large portion of their own repairs.

Mr. KELLEY. How can you say that when you have 3,482 extra men, almost? You have 133½ per cent of the men operating the craft.

Captain DAY. Going to the foreign service again, that is 66½ per cent better than they did.

Colonel ROOSEVELT. Just a parallel. The same sort of a situation arose as to the aircraft. The number of people you have flying is disproportionate to the number of people on the ground. It comes under the same category.

Mr. KELLEY. It would be more like an automobile?

Colonel ROOSEVELT. What I mean is that it is more in that category; its explanation is along the same line.

OPERATION OF SUBMARINES AND CREWS TO KEEP UP EFFICIENCY.

Mr. FRENCH. The other day it was brought out that the submarine was a type of craft that needed to be used very largely in order to keep fit at all, that it would deteriorate much more readily if it is not used than if used. I was wondering what your experience shown as being the amount of use that would attain the perfect condition without waste of use, using it too much?

Captain DAY. That is a very difficult question to answer. It differs with each submarine as it does with each automobile. Some machines require going into the garage three times a month and some do go in for two years. Roughly, a submarine should be operated once a week in order to keep the machinery in condition.

Mr. FRENCH. How long should it be operated, what particular time?

Captain DAY. That depends on the circumstances surrounding the case. Say, from 2 hours to 12 hours.

Secretary DENBY. That is for the machine. The man has to be trained as well, and trained in a great variety of evolutions.

Mr. FRENCH. Of course, their training is going on with the handling of the machine?

Captain DAY. Not in this mechanical condition; not training the crew.

Mr. FRENCH. What is your idea, to run the submarines the minimum amount of time so as to attain the maximum efficiency on the part of both the crew and the machine?

Captain DAY. No, sir. The training of the crew is quite a different matter. They are getting all the training they can get. For instance, last summer they were running five days a week for four months in succession and they became very efficient both mechanically and in the skill of their crew.

PERSONNEL OF DISTRICT CRAFT.

Mr. KELLEY. How did you arrive at the number on the district lists? There is quite an item of 1,500 men that are independent of the navy yards and stations.

Captain WILLIAMS. Of course, all of these figures are very tentative. I first took the 1,500 and then the navy yards and stations—

Mr. KELLEY (interposing). Just stick to the naval vessels.

Captain WILLIAMS. We simply used a fair proportion of the 15,000 as the ratio of the number required up to 100,000.

Mr. KELLEY. Just a good fair estimate?

Captain WILLIAMS. A fair estimate.

Mr. KELLEY. Based on experience?

Captain WILLIAMS. Based on experience; that is about it.

Mr. KELLEY. All the districts are operated by the navy yard commandants except one or two?

Captain WILLIAMS. Yes, sir.

Admiral COONTZ. Two.

Mr. KELLEY. So that outside of those two districts we would not need to carry this as a special item?

Captain WILLIAMS. I prefer to take it up in this way.

SEGREGATION OF DISTRICT CRAFT BETWEEN NAVAL YARDS AND NAVAL DISTRICTS.

Mr. KELLEY. Let us see what we are getting at. In those cases where the commandant of the yard is the commandant of the station, he does not make any attempt to separate the vessels that belong to the district and those that belong to the yard?

Captain WILLIAMS. I think the misunderstanding in the whole thing comes from the word "vessels." Most of these things are not vessels, they are craft.

Mr. KELLEY. They are tugs, barges, and lighters. If the commandant of the yard is also the commandant of the district, then you do not attempt to segregate and attach some of them to the district and some to the yard office?

Colonel ROOSEVELT. Yes; we do.

Mr. KELLEY. How could you do that?

Admiral COONTZ. The commandant of the district is also the commandant of the yard in the case of the third naval district. Under him comes the navy yard, Fort LaFayette, Iona Island, the supply depot at New London, Conn., and all the various activities that are in the geographical area. He is the man who assigns the barges and sends the oil lighters and everything. If we stopped the man at San Francisco or at Hampton Roads it would make no difference. It might make a difference of maybe 20 men. Take San Francisco with Mare Island 30 miles away and with another of the same 200 or 300 miles away, he handles everything there. At Hampton Roads, having the great base there, as well as the navy yard 12 miles away, the ammunition depot, air station, the submarine base, everything there, this man is the head of the whole job. I do not need to tell you that when I want to make a cut I do not send it to the navy yard, I send to Admiral Rodman and he looks over the whole situation; he has personal information, and he writes me to

cut out here or there or elsewhere. The same in the two districts where I have commandants. It is just like when we decided to make a cut of 10 per cent, I sent to the commandant of the whole district and he wrote back to me and said cut out here and here.

Mr. KELLEY. Admiral Rodman is stationed at Hampton Roads?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. He has charge of all this kind of craft that belong to the Government on the Atlantic coast between certain points?

Admiral COONTZ. Yes, sir; the craft under the Navy Department.

Mr. KELLEY. Including the yard at Norfolk?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The 1,500 men you are asking for here, a portion of them are to be assigned to those craft?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And if Norfolk wants one of those tugs or launches or whatever it may be, Admiral Rodman sends one down there with the men aboard?

Admiral COONTZ. Admiral Rodman assigns them.

Mr. KELLEY. And he furnishes the men?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. So that yard itself would not have to put any men on the craft?

Admiral COONTZ. The situation would be this: He assigns a tug to the navy yard and it may stay there nine months.

Mr. KELLEY. Who supplies the men? Do the 1,500 men man the necessary craft under his jurisdiction?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There is nothing of a similar character in any other yard in his district?

Admiral COONTZ. That is correct. When he sends the tug to the navy yard he puts the men on it.

METHOD OF COMPUTING PERSONNEL FOR DISTRICT CRAFT.

Mr. KELLEY. Have you included in this list for the navy yard stations anything for lighters or barges that Admiral Rodman has charge of?

Captain WILLIAMS. We are making an estimate for 1,500 on district vessels.

Mr. KELLEY. I am talking of the principle.

Captain WILLIAMS. I know. I want to show you how we do it. The 1,500 is marked here for district vessels. When you count the navy yards and stations this 1,100—

Mr. KELLEY (interposing). What I am getting at is this: If Admiral Rodman sends the necessary barges, coal barges and other craft of that kind, down to the yard whenever they want the men—

Captain WILLIAMS (interposing). That is a different point.

Mr. KELLEY. I thought that Admiral Coontz said that all the lighters and barges and small tugs that would be operated at the navy yards were under the control of the commandant of the naval district. They used to be under the control of the navy but in order to economize he centered the handling of those

plants of the districts, and if that is true, you would have 1,100 men for the same districts.

n WILLIAMS. Let me try it this way.

ELLEY. All right.

n WILLIAMS. By finding out how many of these districts are in commission, as near as we could on this short notice, to 1,426. That is pretty nearly right; but it is an estimate—best estimate we could make. Then we took the yards and—that is where we are off—and we found Washington, Annapolis, Portsmouth, Norfolk, New York, Puget Sound, Mare Island, San Francisco, Guantanamo, Key West, New Orleans, Pearl Harbor, Saint John, Samoa, and Guam. Those men that we put down there are the nearest approximation.

ELLEY. Your mind and mine are getting right together now.

Coontz has inaugurated a system which looks as though it would be good, to have a district commandant, whether he is the commandant of the yard or not, and to put all of this yard stuff in his hands, so that he can see that the yard is in the best condition that floats. You ask for 1,500 men and I ask you this question, why?

n WILLIAMS. That number will be required to man the vessels designed as district vessels.

ELLEY. That is right. We keep marines scattered around the yards for guards, so you do not need to have civilians.

DISTRIBUTION OF PERSONNEL OF DISTRICT CRAFT.

n WILLIAMS. The 1,100 enlisted men are for all sorts of purposes.

ELLEY. A lot of civilians are used for guards?

n WILLIAMS. They are for all sorts of things.

ELLEY. What are the 1,100 for; they are not for vessels?

n WILLIAMS. Let us take Annapolis—we put down here, on the basis of an estimate, 200 men.

ELLEY. What for?

n WILLIAMS. Those 200 men are on the *Reina Mercedes*, and they are looking out now for the ordnance gear for drill-shipmen; some of them are engaged in the ordnance shop at the Naval Academy. We have had 400 of them. We cut them down to 200. We do not lose track of them. We know where they are and of them is.

ELLEY. Are you not authorized also to hire all the civilians under your appropriation?

n WILLIAMS. You can not hire civilians to look out for torpedoes. There are but five men of this class in this country. They are all we had.

ELLEY. That is only five. That does not enter very greatly into the balance?

n WILLIAMS. They are engaged in occupations which are both land and naval.

ELLEY. Do they not wait on the table in the mess hall?

n WILLIAMS. Not the 200. They did, but we cut them out. We thought that they should wait on the table, but we cut them out. That includes none of those.

Mr. KELLEY. I should like to get an estimate of the number they would need.

Captain WILLIAMS. Eighty of them at Cavite.

Mr. KELLEY. That is too far away. Take the navy yard at Philadelphia; how many men have you there?

Captain WILLIAMS. We have cut Philadelphia out.

Mr. KELLEY. How many at the Norfolk Navy Yard?

Captain WILLIAMS. Sixty-seven.

Mr. KELLEY. What will they use the 67 for?

Colonel ROOSEVELT. The commissary store.

Captain WILLIAMS. The commissary store proposition and activities of that sort.

Mr. KELLEY. That is not a large number, only 56 for a big station like that. Where are the most of the 1,100?

Captain WILLIAMS. The largest one we have is Guam, where we have 50 insular and 50 regulars.

Mr. KELLEY. That is all right; it is a good ways away. Where else?

Captain WILLIAMS. St. Thomas, 15; Pearl Harbor, 60; New Orleans, 18; Key West, 15; Guantanamo, 56.

Mr. KELLEY. How many marines have you at Guantanamo?

Captain WILLIAMS. I do not know. I do not keep track of them. I want to call your attention to the fact that this does not include the hospital force. I will explain that later. These are all of the hospital force; 67 at Norfolk, 32 at Portsmouth, 200 at Annapolis, 229 at Washington.

DUTIES OF DISTRICT CRAFT ENLISTED MEN AT WASHINGTON, D. C.

Mr. KELLEY. What are 229 enlisted men doing in Washington?

Captain WILLIAMS. The 229 men in Washington are running district craft that do not belong in any naval district. They represent district craft in this peculiar situation in Washington.

Mr. KELLEY. Do the 200 include those on the *Mayflower*?

Captain WILLIAMS. No, sir. They are on stations like Indian Dahlgren and things of that sort.

Mr. KELLEY. Are the 200 men on boats?

Captain WILLIAMS. No; not all of them. Washington is a nance yard, and doubtless some of the men are down there. I am not prepared to specify that.

Mr. KELLEY. I did not think it was the policy of the Department to have enlisted men in the shops.

Captain WILLIAMS. It is not, but there are certain very important activities that only enlisted men in the Navy can handle.

Mr. KELLEY. Who knows what these 200 men are doing at Washington?

Captain PINNEY. Captain Williams's statement that they are working in connection with the traffic on the river, between Washington and Dahlgren and Quantico, and even down to Norfolk, is correct.

Mr. KELLEY. Taking new guns down the river?

Captain PINNEY. Yes, sir.

Mr. KELLEY. Now, that the program is ended for those guns, will you do with these men?

Captain PINNEY. We have a great deal of proving work that will have to continue. It will have to go on for some time.

Mr. KELLEY. You will have to use the men just the same?

Captain PINNEY. We will have to use that many down at the proving ground constantly.

Mr. KELLEY. What for?

Captain PINNEY. For the transportation of material and supplies.

Mr. KELLEY. To what place?

Captain PINNEY. To the proving ground.

Mr. KELLEY. Do you mean new guns?

Captain PINNEY. I mean guns that must be proved in connection with the program that is to be continued.

Mr. KELLEY. If you needed only 200 for all of this great program, you would not need 200 simply to finish up the guns for the 10 scout cruisers.

Captain PINNEY. Those activities should be continued.

Mr. KELLEY. They will be continued if we do not discontinue them, but we want to know whether there is any necessity for it. If you discontinue the activity, why keep the men?

Secretary DENBY. You must reline guns and replace guns.

Mr. KELLEY. But not soon.

Secretary DENBY. We have to have target practice.

Mr. KELLEY. You may have to have the old establishment kept up, and you have the old establishment just as you have had it for years. You were arranging for that, but now you are arranging for a vastly expanded establishment. Do you know how many of these men there were in Washington at any particular date?

Captain PINNEY. No, sir.

Secretary DENBY. I want to say that this matter of the Washington Yard complement needed for this purpose is under constant scrutiny and will be reduced from time to time when it is possible to reduce it.

Mr. KELLEY. Have you any enlisted men now in the department?

Captain WILLIAMS. Yes, sir; we have. May I tell you why?

Mr. KELLEY. Yes.

Captain WILLIAMS. It is because in 1919 we started to require these statistics, or these exact figures. We had to look out for the replacements. We had to give clear specific details in regard to marines, and it was a pretty large job. We started the statistical branch for the purpose of getting those figures right. We had no sooner undertaken that when they cut our clerical force in the Bureau of Navigation 47 per cent, without warning. We lost our statistical branch. The statistical branch went overboard. We would not order any enlisted men; we refused to order a single one of them; the Secretary would not sanction it, and we did not believe in it.

We stumbled along somehow, and, perhaps, we are stumbling now, until it came to the question of estimating what appropriation should be made for transportation and recruiting for that year. That made it necessary to find out how many men would be discharged. We borrowed clerks from everybody, until they were asking for them back, and finally we got a few enlisted men to help us in making our estimates of transportation and recruiting. We made our estimates of transportation and recruiting, and it has turned

out to be right, but we did not get the money. We got only one-half of it.

Colonel ROOSEVELT. Where is the navy yard band carried?

Captain WILLIAMS. At the navy yard.

These 200 men may be at the Washington Navy Yard or may not be. In making our estimate of the total we have largely based it on the number of men that have been found necessary in the past when this number of 65,000 goes into effect.

Mr. KELLEY. You will not continue any enlisted men in the Bureau of Navigation, will you?

Captain WILLIAMS. I hope not.

RADIO SERVICE.

Mr. KELLEY. Communication has gotten to be quite a business in the Navy? You have 1,305 men for the radio service. How old is the radio service in the Navy?

Captain BRYANT. It started in 1903.

Mr. KELLEY. How many did you have in 1905?

Captain BRYANT. There was no radio service established in 1912.

Mr. KELLEY. It began in 1912?

Captain BRYANT. Yes, sir.

Mr. KELLEY. To how many men had it grown when the radio came on?

Captain BRYANT. I was not here then and I can not give that number. I can furnish it for the record, however.

Mr. KELLEY. Put in the record a statement showing how many men were engaged in the radio service on July 1, 1916?

Captain BRYANT. I will do so.

NOTE. Number of enlisted men engaged in the radio service July 1, 1916-1950, of which number 442 were on shore. I should like to add, however, that when the radio service was changed to the Naval Communication Service in 1917 a number of activities (all of which logically fell under the category of communication facilities) were added and the number of personnel employed was consequently very considerably increased. The activities originally in the radio service were confined to radio only. The communication service is now present organized has cognizance of naval communications carried on by means of telegraph, telephone, cable, radiotelegraph, radiotelephone, radio visual and underwater signals, and sound telegraphs, pigeons, and postal service. It also has cognizance of the operation of such naval communication systems as may be authorized by law to carry on commercial

Mr. KELLEY. How many men were attached to this service latest available date you have?

Captain BRYANT. On shore?

Mr. KELLEY. Yes; on shore.

Captain BRYANT. On January 31, 1922, there were 1,301 men actually at shore stations, but the number required to man stations properly for efficient operation on this date is 1,596.

Mr. KELLEY. How many civilians are employed in connection with the radio service?

Captain BRYANT. I am speaking of the operation end of the Bureau of Engineering, under Admiral Robison, can give the number of civilians in the mechanical end of it. However, I will put the total number in the communication service (which includes the radio service) in the record.

ELLEY. The mechanics are civilians?

n BRYANT. Most of the mechanics are civilians in the navy here the major radio repairs are made. We carry some, of course, here at headquarters. There are very few civil- the outlying stations which are connected with the operating ent of the communication service so far as the radio features erved.

ELLEY. So that, generally speaking, the civilians are em- own here at the navy yard?

n BRYANT. Yes, sir; the civilian mechanics are mostly at the navy yards.

ELLEY. And not at the various stations throughout the coun- e you are operating?

n BRYANT. No, sir; all of our radio operators are enlisted l.

ELLEY. Do they make repairs when anything goes wrong?

n BRYANT. Yes, sir; except in special cases.

ELLEY. Suppose something goes wrong over here at Arling- would fix it?

n BRYANT. The station crew up to a certain point, unless s something that required outside assistance.

ELLEY. They are enlisted men at the station?

n BRYANT. Yes, sir.

ELLEY. Where do they live?

n BRYANT. Right at the station.

ELLEY. Do they have barracks over there?

n BRYANT. They have barracks right on the grounds.

ELLEY. How many men are at Arlington station?

n BRYANT. There are 13 there now.

RADIO STATIONS AND THEIR COMPLEMENTS.

ELLEY. I wish you would begin on the coast of Maine and list of the radio stations right down the coast, stating the of men at each station.

n BRYANT. We will start with the first district at Bar Har- re we have 5; at Portsmouth, 1; at Portland, 3; at Otter

ELLEY (interposing). Where is Otter Cliffs?

n BRYANT. That is the main trans-Atlantic and transcon- receiving station.

ELLEY. Where is it located?

n BRYANT. Near Bar Harbor. At Newport there are 11.

ELLEY. Have you any marines at these places?

n BRYANT. There are 12 marines at Otter Cliffs.

ELLEY. Give the number of marines at each place.

n BRYANT. San Diego, 12, and Otter Cliffs, 12, are the only here we have marines in the United States. To continue as er of enlisted men, we have at Newport, for receiving and ting, 16. There are 13 light vessels in the first district, and t total of 2 operators on board these 13 light vessels. These ors are on the Nantucket Shoals light vessels. At Chatham 5 men; at Boston, including the whole Boston system, 23;

at the radio compass station in the first naval district, we have Chatham, 4; at Deer Island, 5; at Fourth Cliff, 5; at Gloucester, at North Truro, 5; at Bar Harbor, 4; at Portland, 3; at Prides Neck, 5; at Surfside, 5. These radio compass stations are used for giving vessels off the coast positions, directions, or bearings from their particular locations, so as to enable the vessels in foggy weather or in weather to reach aids to navigation in safety.

Mr. KELLEY. Those stations are in the first district?

Captain BRYANT. Yes, sir.

Mr. KELLEY. Now take up the second district.

Captain BRYANT. We have divided up the second district so part of it is the third district and part the first. There is no second district. There are four light vessels in the third district, on which there are 2 operators altogether; at the New York communication office and control there are 30; at Sayville there are 13. On the *Y. P. Privateer* 1 is the complement; but there is no one on it. There are 4 compass stations, as follows: At Ammagansett there are 4; at Block Island, 6; at Mantoloking, 6; at Sandy Hook, 5; and at New York 1 compass control, 5.

Mr. KELLEY. That brings you down as far as what point of the Atlantic?

Captain BRYANT. To the fourth district. The first station in the fourth district is Cape May.

Mr. KELLEY. In New Jersey?

Captain BRYANT. Yes, sir; there are 6 men at the Cape May station. There are 5 light vessels in that district, but with no operators on any of them. At the navy yard station at Philadelphia there are 8. There are 4 compass stations, as follows: Bethany Beach, where we have 2 men; Cape Henlopen, where we have 8; Cape May, where we have 5; and the Lakehurst Station, where there are 1. The Washington system includes Annapolis, the Navy Department station, Arlington, and the navy yard station and the Bureau of Standards.

Mr. KELLEY. How many men do you have at Arlington?

Captain BRYANT. Thirteen.

Mr. KELLEY. Where are the rest?

Captain BRYANT. There are 32 at the central control station at the Navy Department, 21 at the Annapolis high-powered station, 1 at the Bureau of Standards, and 2 at the navy yard.

Mr. KELLEY. The central control station has charge of all the business?

Captain BRYANT. They control all the high-powered stations along the Atlantic coast and the local stations for the coast work, up and down the coast.

Mr. KELLEY. That is to say, every station gets its instructions from this central bureau in the department?

Captain BRYANT. Yes, sir.

Mr. KELLEY. That is the clerical end of it, is it not?

Captain BRYANT. That is the operating end of it. They are operators, and they actually operate the system from the central office. From here they operate the stations at Annapolis, at Sayville, and at Arlington.

Mr. KELLEY. You mean just as Admiral Coontz operates the S-

Captain BRYANT. No, sir; the key is here. The operator here at the central control operates the Annapolis station, Arlington station, or the Sayville station. He transmits the messages while sitting right here.

The number of men at the Naval Academy station is zero. I am giving you the actual number of enlisted men at these stations.

Mr. KELLEY. At this present moment?

Captain BRYANT. Yes. At Indianhead there are two.

Mr. KELLEY. That is in the Washington district?

Captain BRYANT. Yes, sir. The fifth district begins at Baltimore, and there are 3 men at the Baltimore station. At Cape Hatteras there are 6; at the communication base at Yorktown there was 1, but he has been eliminated. There are three light vessels, with 1 operator on each, making a total of 3 on light vessels. They are at Cape Lookout, Diamond Shoals, and Cape Charles. At Morehead City there are 5. For the Norfolk system there are 31. That system controls all of the communications for the fifth district. There are 25 of them at the operating base control station; 6 of them are at the navy yard station at Norfolk. In addition to these 31, there are 3 at the Virginia Beach radio station.

At the compass stations the men are located as follows: At Cape Hatteras, 4; at Cape Lookout, 4; at Hog Island, 5; at Poyners Hill, 4; and at Virginia Beach, 5. The next is the Sixth District, and for the Charleston Control Station there are 22 men. This includes both the receiving and transmitting stations here. There are four light vessels and one relief light vessel in that district, with no operators on board any of them. At Savannah there are three. There are three compass stations, one at each of the following places: Folly Island, North Island, and Tybee Island. There are six men at Folly Island, six at North Island, and none at Tybee Island.

Mr. KELLEY. That takes you down to what point on the Atlantic?

Captain BRYANT. That takes us down to the Seventh District, St. Augustine being the most northerly station in that district.

Mr. KELLEY. You may put in the record a statement covering the others. I simply want to get a general idea as to how they are distributed.

Status of communication personnel on shore as of Jan. 31, 1922.

Activity.	Allowed.	On board.	Activity.	Allowed.	On board.
Boston radio and communication office.....	16	16	L. V. No. 90, South Shoals ¹ ..	1	0
Boston D. C. S. office.....	2	1	L. V. No. 5, Stonehorse Shoals ¹	1	0
Boston-Chelsea radio.....	5	6	Newport (Melville).....	5	5
Chatham radio.....	5	5	Newport (control).....	16	11
L. V. No. 20, Cross Rip ¹	1	0	Bar Harbor (Otter Cliff).....	90	77
L. V. No. 54, Boston ¹	1	0	Portland ¹	5	3
L. V. No. 39, Brenton Reef ¹	1	0	Portsmouth.....	5	1
L. V. No. 66, Great Round Shoal ¹	1	0	Bar Harbor (sea wall).....	6	5
L. V. No. 3, Handkerchief Shoals ¹	1	0	Chatham (compass).....	4	4
L. V. No. 42, Hen and Chicken Shoals ¹	1	0	Deer Island (compass).....	5	5
L. V. No. 85, Nantucket Shoals ¹	4	2	Fourth Cliff (compass).....	5	5
L. V. No. 47, Pollock Rip ¹	1	0	Gloucester (compass).....	4	5
L. V. No. 73, Pollock Rip Shoal ¹	1	0	North Truro (compass).....	6	5
L. V. No. 74, Portland ¹	1	0	Bar Harbor (compass).....	4	4
L. V. No. 86, Relief ¹	1	0	Portland (compass) ¹	4	3
			Prices Neck (compass).....	5	5
			Surfside (compass).....	5	5
			First district, total.....	213	173

¹ Stations to be closed if only 1,305 men are allowed for communications on shore.

communication personnel on shore as of Jan. 31, 1922—Continued.

Activity.	Allowed.	On board.	Activity.	Allowed.	On board.
	10	7	Balboa (control).....	34	20
Matilla Reef.....	7	4	Cape Mala.....	6	6
Columbia River.....	1	1	Colon.....	8	8
Relief.....	1	1	Darien.....	15	12
Wiftsure Bank.....	1	1	La Palma.....	6	2
	6	6	Puerto Obaldia.....	6	3
	11	7	Coco Solo.....	3	0
and signals.....	1	0			
S., Cordova.....	1	0	Fifteenth district total.....	78	51
S., thirteenth.....	1	1			
control).....	15	27	Cavite.....	46	36
transmitter).....	11	7	Guam.....	40	24
	4	5	Office of D. C. S. sixteenth district.....	2	2
	11	5	Office of Asiatic communication superintendent.....	1	1
	1	1	Olongapo.....	4	4
	14	10	Vladivostok.....	26	33
	6	4			
compass).....	6	3	Sixteenth district total.....	119	100
ass).....	5	1			
compass).....	5	5	Guantanamo.....	33	28
(compass).....	7	3	San Domingo (to be manned by Marines).....	5	9
s (compass).....	6	1			
compass).....	5	1	Guantanamo district total.....	38	37
compass).....	5	1			
nt (compass).....	6	1	Cayey.....	27	32
ass).....	7	4	St. Croix.....	5	2
	4	4	St. Thomas.....	5	6
th district total.....	212	159	San Juan.....	31	22
nolulu.....	5	7	San Juan district total.....	68	62
n office, Pearl.....	3	2			
	10	8	Grand total.....	1,599	1,301
	15	19			
rol).....	47	30			
a.....	12	10			
th district total.....	92	76			

to be closed if only 1,305 men are allowed for communications on shore.

TO BE RETAINED AND CLOSED UNDER PLAN OF 15,000 MEN FOR SHORE DUTY.

1 WILLIAMS. There is also a long list of stations that will need if this number we have allotted there is assigned.

ENCH. In connection with that statement, would it not be Captain Bryant to show the stations that will be maintained the proposed plan, with the personnel quota for each

ALLEY. You may include that in your statement, Captain.

1 BRYANT. I will do so.

many of stations to be retained on basis of 15,000 men on shore.

	Allowed.	At station.		Allowed.	At station.
and communi-.....			Fourth Cliff (compass).....	5	5
Office.....	16	16	Gloucester (compass).....	4	5
a.....	2	1	North Truro (compass).....	6	5
(traffic).....	5	6	Bar Harbor (compass).....	4	4
ile).....	5	5	Price Neck (compass).....	5	5
rol).....	5	5	Surfside (compass).....	5	5
utter Cliff.....	16	11	Amagansett (traffic).....	5	5
	90	77	New York communication office.....	6	7
sa wall).....	5	1	New York compass control.....	5	5
(pass).....	4	5	New York radio control.....	14	10
compass).....	5	5	New York D. C. S. Office.....	6	4

Summary of stations to be retained on basis of 15,000 men on shore—Continued.

	Allowed.	At station.		Allowed.	At station.
New York transmitter.....	4	4	Office of P. C. C. S.....	3	3
Sayville.....	16	13	South City.....	5	5
Amagansett (compass).....	4	4	Yerba Buena (control).....	54	54
Fire Island (compass).....	6	6	Bird Island (compass).....	6	6
Mantoloking (compass).....	6	6	Farralone (compass).....	6	6
Sandy Hook (compass).....	5	5	Point Montara (compass).....	6	6
Navy yard, Philadelphia.....	7	8	Point Reyes (compass).....	6	6
Bethany Beach (compass).....	4	2	Astoria.....	6	6
Cape Henlopen (compass).....	7	8	Communication office.....	1	2
Cape May (compass).....	6	5	Cordova (control).....	16	16
Annapolis Hi-Power.....	24	21	Corlova (transmitter).....	12	12
Indianhead.....	4	2	Dutch Harbor.....	6	6
Bureau of standards.....	1	1	North Head.....	11	11
Navy Department station.....	41	32	Office of D. C. S. thirteenth district.....	1	1
Navy yard, Washington.....	2	2	Puget Sound (control).....	15	15
Arlington, Va.....	13	13	Puget Sound (transmitter).....	11	11
Cape Hatteras traffic.....	6	6	Sitka.....	11	11
Morehead City.....	5	5	St. George.....	1	1
Navy yard, Norfolk.....	5	6	St. Paul.....	16	16
Norfolk control.....	30	25	Seward.....	6	6
Cape Hatteras (compass).....	5	4	Fort Stevens (compass).....	5	5
Cape Lookout (compass).....	5	5	Hinchinbrook (compass).....	7	7
Hog Island (compass).....	5	5	Smith Island (compass).....	6	6
Poyners Hill (compass).....	5	4	Scapstone Point (compass).....	7	7
Virginia Beach (compass).....	5	5	Tatoosh (compass).....	4	4
Charleston (control).....	22	22	City office, Honolulu.....	5	5
Charleston (transmitter).....	6	7	Commissioner's office, Pearl Harbor.....	3	3
Folly Island (compass).....	6	6	Heeia Point.....	10	10
North Island (compass).....	6	6	Pearl Harbor.....	15	15
Tybee Island (compass).....	5	8	Wailupe (control).....	47	47
Jupiter (traffic).....	7	13	Tutuila, Samoa.....	12	12
Key West (control).....	15	6	Balboa (control).....	34	34
Key West (transmitter).....	5	15	Cape Mala.....	6	6
Jupiter (compass).....	4	5	Colon.....	8	8
New Orleans.....	22	13	Darien.....	15	15
Pensacola.....	4	5	La Palma.....	6	6
Point Isabel.....	25	6	Puerto Obaldia.....	6	6
Port Arthur.....	5	8	Cavite.....	46	46
Burwood (compass).....	7	4	Guam.....	40	40
Chollas Heights.....	12	19	Office of D. C. S. sixteenth district.....	2	2
Inglewood.....	4	4	Office of Asiatic commissioner-superintendent.....	1	1
North Island (control).....	27	5	Vladivostok.....	26	26
Point Loma (traffic).....	4	4	Guantanamo.....	23	23
San Pedro (control).....	26	6	Cayey.....	27	27
Imperial Beach (compass).....	5	4	St. Croix.....	5	5
Point Arguello (compass).....	7	1	St. Thomas.....	5	5
Point Heime (compass).....	6	7	San Juan.....	31	31
Point Fernan (compass).....	4	8			
Point Loma (compass).....	4	7			
Mare Island, hi power.....	7				
Mare Island, low power.....	5				
Office of D. C. S. twelfth district.....	1				
			Total.....	1,306	

Summary of stations to be closed on basis of 15,000 men on shore.

	Present complement.		1
Portland traffic station.....	5	Miami traffic station.....	1
Portland compass station.....	4	St. Augustine traffic station.....	1
13 light vessels, first naval district.....	16	St. Petersburg traffic station.....	1
4 light vessels, third naval district.....	4	Key West compass station.....	1
Yacht Privateer, third naval district.....	1	Galveston traffic station.....	1
Cape May traffic station.....	6	Mobile traffic station.....	1
Lakehurst compass station.....	4	Grande Island compass station.....	1
5 light vessels, fourth naval district.....	5	Pass a Loutre compass station.....	1
Naval Academy traffic station.....	4	2 light vessels, eighth naval district.....	1
Base 2, Yorktown, Va., traffic station.....	1	Alpena traffic station.....	1
Virginia Beach traffic station.....	5	Buffalo traffic station.....	1
Baltimore traffic station.....	4	Chicago traffic station.....	1
4 light vessels, fifth naval district.....	5	Cleveland traffic station.....	1
Savannah traffic station.....	2	Detroit traffic station.....	1
5 light vessels, sixth naval district.....	5	Duluth traffic station.....	1

f stations to be closed on basis of 15,000 men on shore—Continued.

	Present complement.		Present complement.
traffic station.....	4	Ketchikan traffic station.....	10
affie station.....	11	Kodiak traffic station.....	7
d traffic station.....	2	Cattle Point compass station.....	6
fic station.....	4	Empire compass station.....	5
fic station.....	4	New Dungeness compass station.....	6
it traffic station.....	5	Port Angeles compass station.....	5
ss station ¹	17	4 light vessels, thirteenth naval district..	4
compass station ¹		Tatoosh traffic station.....	6
it compass station ¹		Ocean Park compass station.....	5
station.....	6	Coco Solo traffic station.....	3
ss station.....	4	San Domingo traffic station ²	5
th naval district.....	2	Olongopo traffic station.....	4
station.....	6		
ion.....	4	Total saving in complement result-	
station.....	6	ing from stations to be closed....	292

ut not opened.
ed by marines.

TOTAL NUMBER OF MEN REQUIRED FOR RADIO SERVICE.

ELLEY. How many men do you think you will need alto-
r this service?

n BRYANT. We will need 1,600.

ELLEY. Captain Williams has put down 1,305.

n BRYANT. If we get 1,305, of course, we will have to elimi-
e of the stations.

ELLEY. Is there not some new contrivance to warn ships of
foggy weather that might displace some of this service?

n BRYANT. Those are beacon stations that they are experi-
with at the entrance to New York, but the practice so far,
it, the result of the practice so far, indicates that the mariner
have his position fixed from the shore. With this radio
e ship must have a direction-fixing radio compass on board
the mariner has to depend on both the ship radio compass
beacon, whereas with the radio compass shore station the
ship radio set sends out a signal and the bearing or position
ip is fixed by the shore radio compass stations. The neces-
special apparatus on board ship is thus eliminated.

ELLEY. If that new contrivance were put in use it would
e further help on shipboard to receive the messages?

n BRYANT. Yes, sir.

RADIO STATIONS AND THEIR COMPLEMENTS ON GREAT LAKES.

ELLEY. I wish you would at this time make a statement cover-
radio stations on the Great Lakes.

n BRYANT. We have stations at Alpena, Buffalo, and Chi-
—

ELLEY. How many men do you have at those stations?

n BRYANT. At Alpena, 5; at Buffalo, 1; at Chicago, 4; at
l, 10; at Detroit, 4; at Duluth, 1; at Eagle Harbor, 4; at
kes, 16; at Mackinac, none; at Manistique, 4; at Milwaukee,
itefish Point, 3. The Secretary has authorized three radio-
stations to be placed in commission—one at Whitefish Point,
mour, and one at Grand Marais.

Mr. KELLEY. Have you anything at Chicago?

Captain BRYANT. We have a station at Chicago.

Mr. KELLEY. Do you have anything at Gary?

Captain BRYANT. No, sir.

Mr. KELLEY. Nothing east of the State of Michigan?

Captain BRYANT. No, sir; not on the east coast of Lake Michigan. We closed two stations there, one at Ludington and one at F

Mr. KELLEY. Will you tell me on what theory you operate a service on the Great Lakes for the Navy?

Captain BRYANT. It was inherited from the war. Those were thrown in when the Marconi stations were purchased by the Navy during the war, and they have been operated since by the Navy Department.

Mr. KELLEY. Do we own these stations?

Captain BRYANT. Yes, sir; and until some one is willing to them over or operate privately owned stations sufficient to this service, there seems to be a sort of moral obligation on of the Navy to continue the service.

REVENUE OBTAINED FROM RADIO SERVICE.

Mr. FRENCH. Do we receive any revenue from the radio service?

Captain BRYANT. Yes, sir; for some of it. Of course we receive any revenue from the Government business.

Mr. FRENCH. You maintain it primarily for Government business and then, in addition to that, you receive revenue from a business?

Captain BRYANT. Yes, sir.

Mr. FRENCH. Do we receive any revenue from the Government stations?

Captain BRYANT. Yes, sir; from ships passing through. They make considerable use of the radio service.

Secretary DESPY. You do not receive any revenue from a ship in its position?

Captain BRYANT. No, sir; not from the radio communication. The other stations are traffic stations, and the ships send their officers and relay them through our traffic stations, as well as using them for ordinary messages between and the shore.

Mr. FRENCH. You have three functions—one for the Navy for shipping, in the general interest of life and property—you have a commercial function, which later is the revenue producing service.

Captain BRYANT. Yes, sir.

AMOUNTS RECEIVED FROM RADIO SERVICE.

Mr. FRENCH. I wonder if we should not have inserted in a statement of the receipts, so that we could have a bird's-eye view of the income from the service.

Captain BRYANT. I can give you the receipts for the years 1918, 1919, 1920, and 1921. I can give you the actual amount into the Treasury.

Mr. KELLEY. From all sources?

Captain BRYANT. Yes, sir; we can not charge the Government anything.

ALLEY. You handle the messages of all the other departments of charge?

1 BRYANT. Yes, sir.

ALLEY. How much did you turn into the Treasury?

1 BRYANT. In 1917, \$32,249.34; in 1918, \$291,903.08; in 1919, \$1,171.19; in 1920, \$641,584.90, and in 1921, \$666,362.44. These are the amounts actually deposited in the Treasury.

ENCH. That money, you might say, comes from service that we do not necessarily have to maintain for the Government service in which you did not receive any revenue at all?

1 BRYANT. Yes, sir. Those amounts represent revenue from service over and above the service that we perform for the Navy and other Government departments.

ENCH. Nothing is charged up against the Government department on account of this service?

1 BRYANT. No, sir; these amounts were actually received in full and deposited in the Treasury. They were received from prices paid for services performed in handling messages of a nature that is purely Government.

WILLIAMS. WOULD HAVE BEEN RECEIVED FROM FEDERAL GOVERNMENT FOR RADIO SERVICE IF CHARGES WERE MADE.

1 COONTZ. I would like to have a statement showing the amount earned, or a statement showing the work that we did for the Federal Government last year, and for which we received payment.

ALLEY. That is, if that service had been charged for at the same rates?

1 BRYANT. We can give that to you and shall include it in the report.

ALLEY. Of course, that does not help us much, because if the other departments can use a service like this without cost they will not pay for it for every little thing, and, therefore, that amount does not represent a saving.

1 DENBY. It would be interesting in the record, would it not?

ALLEY. Yes. Go ahead and put it in.

1 BRYANT. I will put it in the record. The total estimated amount of traffic handled by the Naval Communication Service for the year 1921 was \$3,647,947.56. This was estimated at commercial (Government rates).

ALLEY. Does that include the Navy?

1 BRYANT. Yes, sir.

TOTAL NAVAL INVESTMENT IN RADIO PLANTS OPERATING NOW.

ENCH. What is the total investment in the radio plants of the Navy?

1 BRYANT. In the Navy approximately \$25,000,000 for both shore and shipboard installations.

ENCH. Does that include anything that might be regarded as a charge and that could be cut off now, or is that the investment in the going plants at this time?

1 BRYANT. That is the investment of the going establishments.

ADVISABILITY OF NAVY CONTINUING COMMERCIAL RADIO PRACTICE.

Mr. FRENCH. There is another question I would like to : is matter of interest. There is a very fine increase in commercial : ness, and from your outlook does it seem that it is becoming the : habit of the business world to make use of the radio, so that we : look for still further increases?

Captain BRYANT. Undoubtedly it will increase, but I think it been the Secretary's attitude that where a private station can over the commercial work that is already done by a naval stat the naval station must cease and the privately owned station be : allowed to operate.

Mr. KELLEY. How does our establishment compare with the pri establishments in volume of business done by each for private

Captain BRYANT. They are very loath to give us figures as to : amount of traffic they handle, and I doubt whether we could get from them.

Mr. KELLEY. What is your theory about this radio business? : you think the Navy should go on handling it, or turn it over to priv enterprise?

Secretary DENBY. I think the Government ought to go on : carry it on. I think some of it could properly be turned over, but think the Navy is the proper agency to take care of shipping : interests of that sort, and certainly the traffic with our outlying sessions of the high-powered transoceanic and transcontinental ra of the Government—that is, of the Navy—not with the idea of c peting with private parties but simply the old idea that has al prevailed of the Government not engaging in private business.

Mr. KELLEY. When you make charges for private business, you follow the commercial rates or make lower rates?

Capt. BRYANT. We follow the commercial rates, and where have raised the rates we go up to where they are. In the : of press rates, however, Congress has authorized special low ra certain localities.

Mr. KELLEY. So they have no legitimate cause to complain al your cutting under them?

Captain BRYANT. No, sir.

Admiral COONTZ. You see, at sea, if an officer wants to message he goes to the radio and pays for it, and if an officer's sends him a message at sea she pays for it. I have called at to the vast amount of work we do in central Europe.

LOCATION OF HIGH-POWERED RADIO STATIONS OUTSIDE OF THE UNITED STA

Mr. KELLEY. We will come to that later. Where are we en in the radio business, outside of the United States?

Captain BRYANT. In communication with the West Indies, (Zone—

Mr. KELLEY (interposing). Are those what the Secretary high-powered stations?

Captain BRYANT. Yes, sir. We communicate with the outl possessions through our high-powered stations.

Mr. KELLEY. Where are the high-powered stations that belo the Government located outside of the United States?

Captain BRYANT. In Porto Rico, in the Canal Zone, at (tanamq, medium high powered; at Cordova, Alaska; at St. :

f Islands; Honolulu, at Guam, at Samoa, medium high power at Cavite, at Vladivostok, or Russian island right near Vladivostok, and there is a medium-powered station at Peking in the leased grounds.

KELLEY. We have built all of these during the war, have we?
 BRYANT. No, sir.

KELLEY. All the high-powered stations?

BRYANT. No, sir. This was the plan before the war, sir.

KELLEY. I know, but when were they built?

BRYANT. The ones that actually grew out of the war were Annapolis, which was considered necessary for maintaining communication with the American forces in France, and Vladivostok, communication with the American forces in Siberia. The act of June 1, 1914, provided for the commencement of the stations in the Pacific Zone, Honolulu, Guam, Tutuila, Cavite (Philippines), and their construction was undertaken immediately after the funds were available. The Porto Rico station was appropriated for in the act of June 4, 1917. Guantanamo was built in 1915. Cordova, St. Paul (Hawaii), Tutuila and Peking have been increased in power since

RADIO SERVICE IN EUROPE.

KELLEY. What have you built in Europe?

BRYANT. You mean in the way of radio stations?

KELLEY. Yes.

BRYANT. We have no radio stations in Europe, except Constantinople; there is a receiving station where the engineers keep a watch at the High Commissioner's office in Constantinople, which keeps him in communication with the destroyers operating around that area.

KELLEY. Then what does the admiral mean about so much work done in central Europe?

BRYANT. I have not finished yet. There is a communication service in central Europe which connects up with our high-speed trans-Atlantic service to France. We communicate direct with the Lafayette station in France, and they have permitted our destroyers to receive messages from Annapolis direct. They are passing the shore communication system in Europe, which was established at the time of the armistice, immediately after the war, in connection with the relief work that was going on, such as the child's work, the Red Cross relief, the Near East relief, and the Russian relief. The reason for this establishment appears to have been that as no reliable government in central Europe which could operate a communication system so that messages would go through—that is, no one could be sure that his message would get through at any time, so these associations in order to carry on their humanitarian work realized they had to have a reliable communication system and as the naval communication system, which had been operating, could perform this service efficiently its work was continued.

The relief associations are paying practically all of the expense of that system. We have about 20 men engaged on that work. The Army has a land-wire office at Coblenz; the wire system runs from Paris to Coblenz, to Vienna, to Prague and Warsaw, and there are side branches. At Vienna arrangements were made with

the Austrians to operate the station right near Vienna, a radio station, which puts us in direct communication with Constantinople and radio, and I may add, this station was used a great deal while the Adriatic detachment was patrolling the Adriatic, for maintaining communication with that detachment.

RADIO SYSTEMS OF OTHER GOVERNMENTS AND THEIR COOPERATION.

Mr. KELLEY. Does Great Britain maintain an elaborate system like this?

Captain BRYANT. Oh, yes, sir.

Mr. KELLEY. And any other nations?

Captain BRYANT. Great Britain, France, Italy—and Germany now beginning.

Mr. KELLEY. Have we arrangements with those Governments for the interchange of messages?

Captain BRYANT. We have arrangements with the French Government for the interchange of official messages; we work direct with the Italian Government station, the Japanese Government, the German Government, and any other government that has a station that can work with the United States stations.

Mr. KELLEY. How about private messages—will they deliver them?

Captain BRYANT. No, sir. Where there is a privately owned United States radio station operating a circuit with a radio station in another country we do not attempt to handle commercial messages.

PROHIBITION BY LAW OF GOVERNMENT FROM INTERFERING WITH COMMERCIAL RADIOS.

Mr. KELLEY. Does the fact that the United States is engaged in this business have a tendency to keep private people from developing this business on their own account?

Captain BRYANT. I should say not.

Mr. KELLEY. Suppose you were inclined to go into the radio business in South America, we will say; would you not be a little bit fearful, with the United States Government in the business on such a large scale, that it would be a dangerous thing for you to do?

Captain BRYANT. The law prohibits it, Mr. Kelley; the private companies are protected by law. If anything like that is about to take place all that is necessary to be done to stop any Government competition is for the Secretary of Commerce to notify the Secretary of the Navy that the normal communication requirements are being met by a privately owned station.

Mr. KELLEY. But sometimes it is so easy to change the law as you might hesitate to go into that enterprise.

PAYMENT BY NAVY FOR USE OF PRIVATELY OWNED RADIO.

Mr. FRENCH. Do you have the advantages of private radio service throughout the world for the Navy, as you may need the service or do you have to pay for that?

Captain BRYANT. Our naval vessels have to pay for every dispatch they send through a foreign coast station or through one of our own coast stations that is not owned by the Navy Department.

CAPITAL INVESTED IN RADIO SYSTEMS BY PRIVATELY OWNED BUSINESS.

Mr. FRENCH. What would you say is the capital invested by private concerns in the radio business, or would you have any way of estimating it?

Captain BRYANT. The Radio Corporation of America, which is single company in the United States, has an investment, estimated at about \$16,000,000; the Federal Co., which is a touring company but has asked for concessions in China now has one by which they mean to communicate between and the United States, is the next largest company, but I am unable to estimate what their investment is.

TOTAL COST TO NAVY FOR OPERATING RADIO SYSTEM.

Mr. FRENCH. Suppose we did not have this institution maintained the Government and yet wanted the service for our Navy and shipping and were compelled to pay the rates, how would the compare with the expense of keeping up this as an institution under the Government?

Captain BRYANT. Well, I figure that we get about a 16 per cent return on our investment.

Mr. FRENCH. At present?

Captain BRYANT. Yes, sir.

Mr. KELLEY. What do you mean by that?

Captain BRYANT. I mean that with the money invested we save much money on it.

Mr. BYRNES. But you have not deducted your operating expenses, you, and you mean that the amount of revenue is about 16 per cent of the money invested?

Captain BRYANT. Yes; that is what I mean, the estimated revenue.

Mr. BYRNES. But it is not the net return?

Captain BRYANT. No.

Mr. KELLEY. But you do not know what the cost is?

Captain BRYANT. The cost can be figured up for each independent station.

Mr. KELLEY. What do you figure we are paying for radio in the Navy per annum?

Captain BRYANT. I will give you the figures for the maintenance. That will be included in a statement which I shall place in the hands of the committee.

Mr. KELLEY. What figures have you that you could give just the total?

Captain BRYANT. I can give you the total number of words we transmitted.

Mr. KELLEY. I do not want anything like that. I want to know the total system costs for operation, including repairs and up-keep of every sort.

Captain BRYANT. I will include that in my statement for the committee.

Mr. BYRNES. You do not advocate this as a money-making proposition, but because you believe the Navy ought to control the radio system, is that the theory?

Captain BRYANT. Primarily, of course, it is in the interest of national security, and that was the reason the system was built up, and the Navy should operate and control the system in the interest of national security.

GOVERNMENT CONTROL OF HIGH-POWERED RADIOS.

Mr. KELLEY. What did you mean when you said the Government ought to control all of the high-powered stations?

Captain BRYANT. My reason for saying that is that the high-powered stations, which are established, owned, and operated by the Navy are the backbone of the communication line which our Government would use in any naval campaign. I refer to naval high-powered stations. Private stations should, however, be regulated by the Federal Government.

Mr. KELLEY. And it is the theory that no private concerns should build high-powered stations like them?

Captain BRYANT. For commercial purposes with other countries I think they should build them.

Mr. KELLEY. That is why I did not quite understand you.

Captain BRYANT. If they were built where our strategic requirements require it, they might not necessarily be good commercial investments although, as a rule, naval stations happen to be in places where they yield some commercial returns.

Mr. KELLEY. If the Government controlled all the high-powered stations would we have high-power stations enough to transact the commercial business of the private companies and our own Government?

Captain BRYANT. I think we would have; yes, sir—if you do not wish to include the privately owned high-powered stations.

Mr. KELLEY. And there would be no objection to an arrangement between the Government and private companies for the use of high-powered stations—is that your idea or, perhaps, I am not clear in my own mind about this.

Secretary DENBY. I do not think the captain has advocated abolishing of these.

Mr. KELLEY. I am floundering because I do not know what you mean and I am trying to find out.

Captain BRYANT. The way I look at it is this: We have certain requirements for our naval operations and what I wanted to say before you was the fact that this system of naval high-powered stations, established in the United States and out around throughout the world, is based on the strategic needs of the fleet in time of war or any naval campaign in any area, while the commercial stations are established primarily in places where they can make money and I feel, of course, that they should have every right and privilege to go ahead and do that.

Mr. KELLEY. Your remarks did not include the control of any of these stations as that.

Captain BRYANT. Not by the Navy; no, sir.

Mr. KELLEY. Nor by the Government?

Captain BRYANT. Control, yes; but not ownership and operation.

The CHAIRMAN. I understood you to say that you have high-powered stations sufficient to meet all the needs of the world?

Captain BRYANT. Of the United States.

The CHAIRMAN. That is, in communication with the world?

Captain BRYANT. Yes, sir; if you include private stations.

The CHAIRMAN. And I think I understood you to say that there would not be any objection to the use of these high-powered stations through the Navy by the commercial concerns that might wish to use them; did I understand you to say that?

Captain BRYANT. Not exactly that, sir.

The CHAIRMAN. I know you did not use those words, but I think that is what you meant.

Captain BRYANT. To be used for commercial purposes.

CHAIRMAN. But controlled and operated by the Navy at a cost to be paid by the commercial institutions which might wish to use them?

Captain BRYANT. Yes, sir; for transmitting their messages, but leaving the operation in the hands of the Navy.

CHAIRMAN. And if that conclusion is correct, do you think payments by commercial enterprises in the radio service of the radio would not be justified?

Captain BRYANT. Well, I think it has justified itself, because they have already done it.

The CHAIRMAN. We need not argue that question if it is out of the way.

Mr. KELLEY. When was the station at Vladivostok built?

Captain BRYANT. It was built in the winter of 1918, when the allied forces went into Siberia.

AUTHORITY FOR NAVY TO ESTABLISH NEW STATIONS.

Mr. KELLEY. Has the Navy Department the authority to establish radio stations whenever they see fit and wherever?

Captain BRYANT. No, sir; I believe they have always been appropriated for by Congress.

Mr. KELLEY. For specific places?

Captain BRYANT. The high-powered stations have been specifically appropriated for.

Secretary DENBY. But not the Great Lakes stations?

Captain BRYANT. No; they have not.

Mr. KELLEY. Do you think you now have authority to establish other stations?

Captain BRYANT. Yes, sir; there is such authority.

Mr. KELLEY. The only limitation being the amount of money appropriated for the Bureau of Engineering?

Captain BRYANT. Yes, sir; but instead of establishing stations, we have been cutting them out.

Mr. KELLEY. I know, but I was asking for the authority.

Secretary DENBY. If it were included in the appropriation it could be done.

Colonel ROOSEVELT. I checked that up for my own information some time ago, and I found we have authority to establish the smaller stations if they come within the appropriation, but as to the high-powered stations, it was thought best, because they were large undertakings, to get specific authority.

Admiral COONTZ. And we can buy land up to, I think, \$500.

Captain BRYANT. Yes, sir.

The CHAIRMAN. Did I understand you to say you did not have authority to establish the Great Lakes stations?

Secretary DENBY. No; we did not have a special authorization.

The CHAIRMAN. You bought them, as I understand it?

Captain BRYANT. Yes, sir; they were bought during the war.

The CHAIRMAN. What authority did you have to buy them?

Secretary DENBY. We had the war authority to do that.

The CHAIRMAN. And, of course, that being done, you maintain them under the war authority?

Secretary DENBY. Captain, have we bought any since?

Captain BRYANT. Not since the war.

The CHAIRMAN. But you are operating stations taken over the war without having any law that authorized either their lishment or operation: is that right?

Secretary DENBY. The war authority, I think, was broad for that.

Mr. BYRNES. Is it not a fact that there was some legislation by the Merchant Marine and Fisheries Committee which authorized them to be taken over?

Secretary DENBY. I do not know, but I can easily find out.

Captain BRYANT. The Secretary of the Navy purchased the coast stations during the war; he purchased all of the coast stations.

Mr. KELLEY. My recollection is that you had authority to do anything to carry on the work of the Navy during the war, under that authority you acquired these stations?

Captain BRYANT. Yes, sir.

Mr. KELLEY. And I suppose under the same general authority you can operate anything needful for the Navy.

Colonel ROOSEVELT. I think it might be well to draw attention to the fact that the Navy, perhaps more than anybody else, has been responsible for very great advances in radio.

Mr. KELLEY. But once in a while you hear the idea advanced by people who are the business in a private way that there is no encouragement for them to make experiments and go forward on the Government is in it in such a large way.

Secretary DENBY. The whole thing is in such a state now that it is very difficult to settle it. The radio telephone has complicated it and a board is now sitting on that.

OTHER GOVERNMENT AGENCIES OPERATING RADIOS.

Mr. KELLEY. Is there any other Government agency that has radio?

Secretary DENBY. Yes; I think the Post Office Department, the Army, and the Department of Commerce, but I do not know anything about their stations.

Colonel ROOSEVELT. The Post Office Department operates practically nothing, although they do operate some very small stations.

Captain BRYANT. They have about seven or eight stations all over the country.

The CHAIRMAN. And that is in connection with their service?

Captain BRYANT. Yes, sir.

The CHAIRMAN. They are not authorized by law to do that.

Colonel ROOSEVELT. The Army operates more in the line of that; they have sets they are installing at the headquarters of the area, and the operations of the Department of Commerce do with their lightships, relatively few in number and of small power.

Mr. KELLEY. But no other department operates on the coast outside countries?

COOPERATION BETWEEN ARMY AND NAVY IN RADIO

Admiral COONTZ. The Army has certain stations at certain times, at the request of the Secretary of the Navy.

f which General Pershing is chairman, is endeavoring to ascertain whether the Army and the Navy in any manner conflict and what tions, if any, can be cut out, and they are to recommend that very message it is possible to send by the Navy over Army radio, or vice versa, shall be sent.

Colonel ROOSEVELT. We are zoning the whole thing as far as we are able.

Admiral COONTZ. It is under consideration by the joint board at this very minute.

RADIO AT HAITI.

Secretary DENBY. If I may I would like to ask Captain Bryant question or two. When I was in Haiti they told me that if the Navy radio would increase its facilities it would easily pay for itself, and they were very anxious to have it done. I am asking now, for my own information, what that status is. That is a Marine Corps station, but do you know about it?

Captain BRYANT. Yes, sir; the Navy owns it and the marines operate it. They want to get a high-powered station there so as to communicate direct with the United States and have it handle commercial business as well as Navy business, but we felt that the expense necessary for an increase in power was not justified because they can communicate direct with Guantanamo and San Juan, from either of which places communication with the United States is practicable.

Secretary DENBY. You do not think it would be beneficial to increase the power for commercial purposes?

Captain BRYANT. No, sir.

TOTAL OPERATING EXPENSE OF RADIO BY NAVY AND VALUE OF INVESTMENT.

Mr. KELLEY. Will you put in the record, after you ascertain what the fact is, a statement giving the total operating expense of the radio system of the Navy and also the value of the investment as nearly as you can get at it?

Secretary DENBY. You mean the cost price?

Mr. KELLEY. I would not say that, but I would say as near as you can get at what the entire plant cost?

Value of the naval shore radio establishment as of Apr. 1, 1921.

Patents.....	\$625, 000. 00
Radio compass stations.....	795, 318. 58
Atlantic and Gulf Coast stations.....	7, 029, 800. 00
Great Lakes, Alaska, Pacific coast and in Pacific.....	6, 970, 840. 00
Total shore stations.....	15, 420, 958. 58

Ships and other installations.

Ships.....	6, 828, 924. 57
Aircraft.....	119, 536. 00
Patents.....	625, 000. 00
Sound apparatus.....	2, 164, 697. 00
Total ships.....	9, 738, 157. 57
Total ship and shore.....	25, 159, 116. 15

Secretary DENBY. In other words, what it would take to construct that plant, because its value to-day, if sold at second hand, would probably be very much less than it would cost to replace it.

Captain BRYANT. That includes the pay of the personnel, I presume?

Statement of Naval Communication Service first half fiscal year 1922 (July 1, 1921, to Dec. 31, 1921.)

Credits:			
Commercial radio traffic, net.....	(a) \$141,659.78		
Navy radio traffic.....	(c) \$1,122,688.22		
Other Government radio traffic.....	(c) 40,365.71		
Total Government radio.....	(c) 1,924,001.90		
Total radio.....	\$2,065,731.74		
Leased wire telephone traffic.....	13,646.98		
Leased wire telegraph traffic, Navy.....	170,686.67		
Leased wire telegraph traffic, other Government.....	24,818.83		
Total leased wire.....	215,132.48		
Telephone service rendered Navy.....	(f) 90,738.48		
Commercial telegraph and cable traffic, Navy.....	(k) 35,688.22		
Compass bearings to United States Navy vessels.....	(d) 11,970.00		
Compass bearings to other vessels, U. S. N.	(d) 34,108.80		
Total compass service.....	(d) 46,078.80		
Total credits (a).....	\$2,450,305.72		
Debits:			
Plant.....			
Maintenance radio plant.....	\$620,000.00		
Rental telephone plants.....	(f) 60,262.03		
Leased telephone wires.....	\$10,212.48		
Leased telegraph wires.....	11,491.36		
Total leased wire.....	24,707.01		
Total leased plant and wires.....	(f) 84,969.07		
Total plant expense.....	704,969.07		
Traffic—			
Telephone local and L. I. tolls.....	30,494.45		
Telegraph and cable tolls.....	35,068.23		
Total traffic expense.....	(g) 65,562.67		
Personnel—			
Officers (90).....	(e) 188,246.99		
Enlisted men (1,208).....	(c) 1,001,901.17		
Total Navy.....	(c) 1,190,148.16		
Civilian—			
Field service—			
Navy.....	\$14,781.00		
Navy (as).....	92,023.28		
Telegraph (as).....	30,816.20		

Civil radio personnel Engineering (125)

Total personnel expense (c).....	1,535,666.93
Total debit.....	2,306,786.67
Net saving to Government of Naval Communication Service for six months (l).....	149,497.05

- (a) Cash turned into Treasury.
 (b) Includes all Government departments and Shipping Board.
 (c) Estimated at commercial cost (Government rate).
 (d) Estimated at average charge made by foreign governments.
 (e) Includes all pay and allowances including subsistence.
 (f) Plus (g) is "Pay, miscellaneous", sub. 10.
 (g) Covers entire amount paid to commercial lines for all Navy traffic.
 (h) Under legislative, executive, and judicial.
 (i) Plus (g) equal (j) plus (k) and the credit balances the debit.
 (l) Exclusive of military value, safety of life at sea, pigeon service, time and meteorological service, handling of international radio accounts, etc., to which no money value can be assigned.

Respectfully submitted.

LEIGH NOYES,
Commander United States Navy, Chief of Traffic Section.

RATING AND PAY OF MEN ENGAGED IN RADIO SERVICE.

Mr. KELLEY. Yes; all the expense. What ratings are engaged this kind of work mostly?

Captain BRYANT. Radio men.

Mr. KELLEY. What classes?

Captain BRYANT. From chiefs down to second class, although are a few third class ashore.

Mr. KELLEY. They would get about what pay per month?

Captain BRYANT. Chief radio men get \$126 a month; the pay the lower ratings is, of course, less, depending on the rating.

Mr. KELLEY. Are most of them those highly paid officers, from \$126 a month?

Captain BRYANT. No; there are more in the lower ratings there are in the rating of chief radioman. There are a good chiefs now on the Pacific coast, and navigation has been trying to get them adjusted so that we will have a better proportionate distribution.

Mr. KELLEY. Captain, can you tell me how many of these 1 in each rating, the number of men in each rating with the pay of

Captain WILLIAMS. I believe the rates run, \$126, \$99, \$72, and

Mr. KELLEY. Please send to the committee a statement showing number in each grade and the pay of each.

Captain WILLIAMS. Yes, sir.

The CHAIRMAN. The Navy has been advocating the control of radio business for commercial purposes, has it not?

Captain BRYANT. The last administration advocated that, I think.

The CHAIRMAN. And the present administration?

Secretary DENBY. It advocates the regulation of radio, and that is a matter which is now agitating everybody.

The CHAIRMAN. Has that matter been before any of the committees?

Secretary DENBY. Not that I know of.

Mr. KELLEY. I notice that you had 22 men at the Paris lectures on the 1st of July. What are they doing over there now?

Captain BRYANT. Some of them are used in connection with land lines in central Europe.

Mr. KELLEY. That is, they are used in connection with the service?

Captain BRYANT. Yes, sir.

Mr. KELLEY. It says at the headquarters.

Captain BRYANT. That was the naval staff headquarters in England and I know some of the radio men were attached there and actually doing duty there.

AIR SERVICE.

DISTRIBUTION OF ENLISTED PERSONNEL IN AIR SERVICE.

Mr. KELLEY. Now tell me why you need 1,070 enlisted men in aviation?

Captain WILLIAMS. You have not forgotten the hospital item!

Mr. KELLEY. No; I will come back to that.

Commander ELLYSON. The Fleet Air Base at San Diego 736; the Anacostia Experimental Station 211; Lakehurst 1; Hawaii 85. That brings it up to the total of 1,070.

Mr. KELLEY. What do these enlisted men do?

Commander ELLYSON. At Anacostia there are 3 in the clerical department, 4 in photography and aerology, repair and overhaul 48, experimental 52, handling of planes and minor overhauls 56, care of ordnance gear equipment 4, radio communications 15, upkeep of buildings and grounds 14, medical department 2, commissary department 12, and police duties 1.

Mr. KELLEY. An all-around service from mechanics to helpers of various sorts to take care of the machines when the boys bring them?

Commander ELLYSON. Yes, sir.

NUMBER OF MACHINES IN ACTUAL FLYING CONDITION.

Mr. KELLEY. Do you know how many machines there are in actual condition for flying now?

Commander ELLYSON. I can tell you at each station how many are allowed and there are approximately 50 per cent more in reserve at each station. Do you want it by stations or by grand total?

Mr. KELLEY. Just give us the total.

Commander ELLYSON. The total at shore stations?

Mr. KELLEY. Yes, sir.

Secretary DENBY. Of all types?

Mr. KELLEY. Yes, sir; all types of machines that are in good condition for flying.

Commander ELLYSON. I can not give you that. I have just those in condition for operating.

Mr. KELLEY. All right; just those in condition for operating.

Commander ELLYSON. At Anacostia, 20; at Coco Solo, 16; at Pensacola, 181; at San Diego, 91; at Pearl Harbor, 15; at Hampton Roads, 75; at Dahlgren, 4; at Newport, 2.

Mr. KELLEY. How many does that make altogether, Commander?

Commander ELLYSON. Four hundred and four.

Mr. KELLEY. Are those in operation all the time?

Commander ELLYSON. At Hampton Roads I gave 75 machines, and there are only four in operation.

Mr. KELLEY. Can you give us the total number that are in operation, without giving them by stations?

Commander ELLYSON. There is an allowed complement of so many machines to be kept in operation.

Mr. KELLEY. Give us that number.

Commander ELLYSON. One hundred and sixty-seven.

AIR STATIONS TO BE CLOSED FOLLOWING PROPOSED COMPLEMENT.

Mr. KELLEY. And you need 1,070 men?

Commander ELLYSON. One thousand and seventy men would necessitate closing Hampton Roads, closing the training school at Pensacola, and all other stations except Hawaii.

AIR STATIONS TO BE OPERATED UNDER PROPOSED COMPLEMENT.

Mr. KELLEY. And what places would be left?

Commander ELLYSON. San Diego, Anacostia, Lakehurst, and Hawaii.

Mr. KELLEY. The bulk of these operations is at San Diego? Commander ELLYSON. Seven hundred and thirty-six are at San Diego.

Mr. KELLEY. How many have you at San Diego? Commander ELLYSON. About 100 less than that.

AIRPLANES AT CANAL ZONE.

Mr. KELLEY. How many airplanes have you at the canal? Commander ELLYSON. Sixteen.

Mr. KELLEY. How many has the Army down there?

Commander ELLYSON. I do not know.

Mr. KELLEY. The airplane business on the canal belongs to the Army and it would not matter whether we had any there or not.

Commander ELLYSON. Yes, sir; we are responsible.

Mr. KELLEY. How many machines have you there?

Commander ELLYSON. We have only four there.

Mr. KELLEY. Might not even those be cut down?

Commander ELLYSON. We can not do it.

TOTAL NUMBER OF MEN ON SEA AND SHORE DUTY JANUARY 1, 1922.

Mr. KELLEY. Did you make a distribution for the Naval Committee of the personnel ashore at the same time that you made a distribution of those afloat?

Captain WILLIAMS. I do not think there was one made.

Colonel ROOSEVELT. I am practically certain there was one.

Mr. KELLEY. What was the ratio of men afloat to men ashore for the war, in 1916?

Captain WILLIAMS. Two to one.

Mr. KELLEY. One third?

Captain WILLIAMS. Yes, sir; that is, approximately.

Mr. KELLEY. To make that a fair comparison we will include the proper number for aviation and radio. That is about all we would have to do.

Captain WILLIAMS. There is another element to which I call your attention, the hospital force.

Mr. KELLEY. If you will answer this question of mine we will get back to the hospitals.

Captain WILLIAMS. I do not know just exactly what you are asking at, Mr. Kelley.

Mr. KELLEY. Before the war you said that we had as many people on shore as on the sea?

Admiral COONTZ. No; one-half.

Mr. KELLEY. One-half?

Captain WILLIAMS. Two to one, two at sea and one ashore.

Mr. KELLEY. That is one-third the entire number.

Captain WILLIAMS. You are speaking of this distribution of 15,000 and its peculiarities?

Mr. KELLEY. How many men did we have ashore and afloat in 1916?

Commander LEAHY. I have not that. If you will take the figures of 1915 you will find it.

ELLEY. Captain, how many men did you have at sea on the January, last?

in WILLIAMS. Sixty-eight thousand one hundred and thirty-

ELLEY. How many did you have ashore?

in WILLIAMS. I would like to call your attention to the fact 68,000 probably included shore-based submarine tenders, That includes men under training and men on general de-

ELLEY. Seventeen thousand four hundred and seventy-two at the Naval Committee as being the shore establishment on 1 of January?

under LEAHY. That probably did not include men under training and general detail.

ELLEY. You say that you had 68,000. You must have had more than that on the 1st of January.

in WILLIAMS. You are talking about civilian employees?

ELLEY. No, sir; enlisted men.

in WILLIAMS. There must be some mistake.

ELLEY. Who prepared that table?

in WILLIAMS. That came from the Bureau of Yards and Docks, report which was two years old. I would not swear to it, but on my judgment.

ELLEY. That is fairly recent. It says:

WASHINGTON, D. C., *February 10, 1922.*

FROM MR. BUTLER: Referring to your telephonic request of January 7, we furnished a statement showing the number of civilians, officers, and men stationed at each navy yard, naval station, or other shore activity, latest date, made upon the Bureau of Yards and Docks—

in WILLIAMS. That is what I am talking about.

ELLEY (reading):

As transmitted herewith the information requested.

It is headed January 1, 1922.

in WILLIAMS. I think that is the annual report of the Bureau of Yards and Docks for the year 1921.

ELLEY. It is signed "Edwin Denby, Secretary of the Navy." It says, "January 1, 1922, statement showing the number of enlisted men (Navy and marine) and civilians stationed at navy yard, station, and other shore activity." Then it goes on the list. You mean to say we can not rely on that as being a statement of facts?

in WILLIAMS. Apparently not. It was used for another purpose. That was a list of shore stations. There might be stations on the coast that the Bureau of Yards and Docks would not know anything about, might not come under the bureau. You asked the Bureau of Yards and Docks for personnel information. That thing is in existence now for two or three years and has not been changed. That is a copy of it.

ELLEY. If there is any erroneous statement in it, I would like you point it out.

in WILLIAMS. I think there were 20 pages of the original report as made up for that purpose, the appropriation "Maintenance of yards and docks."

Mr. KELLEY. When you send these things up here like that, p by the proper committee, signed by the Secretary of the Navy, w all the stations named and all the number of men set down opp each one, what do you expect the layman up here to do, to i the figures as truthful?

Captain WILLIAMS. That is absolutely right in answer to the q tion upon which it was based. It is absolutely wrong in answer the question which I am answering. The question upon which was based was for the Bureau of Yards and Docks, to give info tion of the men at shore stations, which they had cognizance They prepared that for the Naval Committee. The Naval Commit was on a totally different track then.

HOSPITAL FORCE.

Mr. KELLEY. What about the hospitals?

Captain WILLIAMS. Now, for the hospital business, you rem that the law is peculiar in regard to the hospital personnel. I hospital personnel is designated as $3\frac{1}{2}$ per cent of the enlisted fo of the Navy, plus the enlisted force of the Marine Corps, and i specified that it shall be in addition to the personnel allowed in Navy and in the Marine Corps. The whole element, as stated y day, does not exceed 15,000, and we counted the Hospital Corps in the 15,000. This 1,645 men, the number I have down here Hospital Corps men, plus the number of Hospital Corps men at which I put down as 680, will be 890 men short of those allowed the present statute law. Do I make myself plain?

NUMBER OF HOSPITAL CORPS MEN ON HAND NOW.

Mr. KELLEY. How many Hospital Corps men do you have r now?

Captain WILLIAMS. We have an operating force of 1,978.

Mr. KELLEY. That is the number you are using now when I have thousands of war-risk patients in your hospitals? You do expect us to pay for those patients out of appropriations for Navy, when you are collecting that cost from the Veterans' Bureau?

Captain WILLIAMS. We have not got it yet.

Mr. KELLEY. You have \$4.20 per patient for everyone you take

Captain WILLIAMS. But we have less than $3\frac{1}{2}$ per cent of the listed personnel of the Navy and Marine Corps in the hospital

Mr. KELLEY. If you have 1,978 now, you will not need more 1,600 next year.

Captain WILLIAMS. That is the total in the hospital service. I would have to have an additional number to make up the $3\frac{1}{2}$ allowed by law.

Mr. KELLEY. You do not want to make up the $3\frac{1}{2}$ per cent you need it.

Captain WILLIAMS. I only call your attention to the fact this time we have included that $3\frac{1}{2}$ per cent in the 15,000 and in 50,000, and we have not carried out the present law making that ber additional.

NUMBER OF HOSPITAL CORPSMEN REQUIRED.

Mr. KELLEY. If you have only 1,900 men in the hospital service now, on the basis of 100,000 men in the Navy, you certainly will not need more than 1,600 men next year with the greatly reduced personnel. I think you have worked that out pretty well, although, perhaps, you have made it more than you should have done. You say you have 1,900 men in the hospital service now, in round numbers, and this gives you 1.637.

Captain WILLIAMS. What I am talking about is the fact that I have counted the 1,645 men in the 15,000.

Mr. KELLEY. I know that.

Captain WILLIAMS. Unless the law is changed, this number, instead of being 15,000, would be 18,000.

Mr. KELLEY. We can take care of that. When we have appropriated money for what you actually need, we will be very comfortable.

TOTAL ENLISTED PERSONNEL AT SEA AND ON SHORE JANUARY 1, 1922.

Is there anything else?

Admiral COONTZ. No, sir; except that I think the shore station situation should be cleared up. On the 1st day of January there were about 67,000 men afloat and 35,000 or 36,000 ashore.

Mr. KELLEY. We will try to find out about that when the captain appears on the question of the enlisted strength.

Mr. BYRNES. Did you cover the 28,000 men on shore?

Mr. KELLEY. There was a figure given of 28,000 men on shore.

Captain WILLIAMS. The number is 28,799 plus 4,062 in transit.

Mr. KELLEY. That includes 8,000 replacements?

Captain WILLIAMS. Yes, sir; it includes men in training, general detail, and in transit. We had 82,000 first enlistments in the Navy last July.

Mr. KELLEY. How many first enlistments did that 28,000 include; how many apprentice seamen, and how many were under training?

Captain WILLIAMS. About 5,310.

Mr. KELLEY. As of what date?

Captain WILLIAMS. January 1.

NUMBER OF MEN IN TRAINING.

Mr. KELLEY. They were all under training?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. They were in trade schools?

Commander LEAHY. Trade schools and training stations. There were 1,334 in special schools, and the 3,976 under training. There were a total of 5,310 men under training.

Mr. KELLEY. What do you use 6,430 men at Hampton Roads for? Colonel ROOSEVELT. That is the training station.

Mr. KELLEY. You have 1,949 men at the Great Lakes.

Captain WILLIAMS. There are some at district headquarters.

Mr. KELLEY. Give the number in training.

Captain WILLIAMS. At this particular time?

Mr. KELLEY. At any time.

Captain WILLIAMS. At Hampton Roads, 2,872 were ing. There were in addition in the trade schools, at that men. We had as overhead at the training stations 928 overhead at the trade schools of 54.

Mr. KELLEY. You had 928 men taking care of 3,000 stud

Captain WILLIAMS. We have had a very great many that. At that particular moment we happened to have only 2,872 but we have had, and usually have, more than 2,872 in training. When the number gets down to that minimum we clear up head.

Mr. KELLEY. You send the men out to the ships?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You can take out 500 or 600 men from there at time?

Captain WILLIAMS. Yes, sir.

OFFICE IN CHARGE OF ENLISTED MEN.

Mr. KELLEY. Who is responsible for the number of men at stations?

Admiral COONTZ. The answer comes back to the Secretary of Navy.

Mr. KELLEY. I know that he is at the head of the whole thing who has charge of the shore establishments of the Navy.

Colonel ROOSEVELT. I have as much to do with it as anybody.

Mr. KELLEY. But there is somebody under you.

Colonel ROOSEVELT. There has not been anybody under the administration in direct charge of it. Since this administration came into some time about last August, Captain Willard was put in charge as an aid to the Secretary. He was appointed aid to the Secretary in charge of navy yards. His functions, however, are not administrative, but are simply advisory. He will present plans or check things; but all the orders come directly from the Secretary or

Admiral COONTZ. Do you mean the enlisted force, Mr. Chairman?

Mr. KELLEY. Who has charge of the enlisted men?

Admiral COONTZ. Rear Admiral Thomas Washington.

REASONS FOR PRESENT ESTIMATED COMPLEMENT.

Mr. KELLEY. How do you know that you need that many men at these stations?

Captain WILLIAMS. We have reports up there in the bureau. It is something that it watched over by all of us, and it is certainly the object of every man in that bureau to reduce that force to the minimum possible limit. We have taken up several questions and discussed them, and they have been gone into as deeply by us as we knew how to go. We have cut off every solitary man that he possibly sent to sea. It is only after those efforts, and against on all the time, and against the protest of people outside, and in coordination with the efforts of those various offices here and the various special activities, that the bureau is able to leave those men whom you see here. We have minute reports who they are, where they are, how long they have been there, what they are doing. That matter is the subject of the

minute study of the entire enlisted branch of the Bureau of Navigation. That is something that goes on constantly, and we are primarily to see that these men on shore duty are reduced to a minimum. Before you can thoroughly understand these figures

Before you can pick any different men and hold them up, you have to admit certain general conditions which affect this problem. You have got to realize that you can not ship men, trained men and trained men, as you do material. If you look back upon the time the last three years you will see that we have discharged enlisted men above the number and have then enlisted men in excess. You will see that each one of these peculiar elements enter into the enlisted personnel, and that it has its bearing on this force ashore.

Now, let us suppose that you have a standard number of average trained men, which you have not got and which you will not have until things settle down, and you would not require these 980 men

Hampton Roads. You would not be required to be training torpedo men all the time, but as long as you enlist men one day and discharge them the next, you must keep these training activities going. That is what accounts for so much of these activities on shore. We have investigated as minutely as we could the duties of these people, man by man and place by place, and this is the result.

Mr. KELLEY. Is there anybody in your department who visits these places and who looks into the conditions for himself? You simply have the reports, do you not? The men from whom you get the reports are interested in having these men continued on the job.

Captain WILLIAMS. Not at all; wherever we suspect that there is the possibility of a change, we make it. We send a board of officers, one being from Operations and one from the Bureau of Navigation, and they go into the duties of these men.

Mr. KELLEY. Is it your experience that every man you cut off is removed under protest?

Captain WILLIAMS. Absolutely.

Mr. KELLEY. Of course, they are human. When you rely on those reports it does not signify anything at all.

Captain WILLIAMS. We do not rely on such reports alone, but we rely on the reports plus the verbal contact that we have with the officers in charge and the personal inspection that is made from time to time by officers of the bureau.

Mr. KELLEY. Now, if during the coming year the element of training should develop to be a little less than required heretofore—

Captain WILLIAMS (interposing). Let us start with that assumption, but before reaching a conclusion—

REDUCTION OF TRAINING SCHOOLS.

Mr. KELLEY (interposing). You intend to practically close up a lot of stations, do you not, this coming year?

Captain WILLIAMS. We will have to.

Mr. KELLEY. Including training schools?

Captain WILLIAMS. We will have to.

Mr. KELLEY. There is no use in keeping them up.

Captain WILLIAMS. You say there is no use, but we have got to do it if the 65,000-men program goes through.

Mr. KELLEY. With the reduced Navy you are going to keep those stations in nothing more than a cold-storage condition.

Captain WILLIAMS. That is true.

Mr. KELLEY. Will not that make a considerable difference?

Captain WILLIAMS. All of that has been arranged under that we are talking about. You know what took place at the Lakes, and you know what took place at Hampton Roads. In this place we have allowed only 280 caretakers to look out that property. You remember that six months ago we were told to let them fall down. Those were the instructions we got from the Naval Affairs Committee. They told us to let the property fall down and let the plumbing deteriorate. Now, they are talking about turning it over to the Veterans' Bureau. You have got a certain number of men in the Navy, and you are talking here, as a mathematical proposition, about reducing it to 65,000. Now, you are going to close the training stations and, perhaps, trade schools. How are we going to reduce? Which method we follow? Are we going to have 65,000 men on July 1, 1923? That case we will, of course, have to begin recruiting very soon. We will have to open training schools for the new recruits, and we will figure on training in trade schools after the 1st of July. Will we follow the method of allowing the number to fall off as it comes about, so that we will have an average of 65,000 men for the same as we did two years ago, when we reached an average of 125,000 men? If you are going to have an average of 65,000 men throughout the year, you will have more than on the 1st of July. On the 1st of July, 1923, you will have very much less than 65,000. If we were going to do it that way, we would not need to do any recruiting, perhaps, until November or December, but at that time we would start recruiting, and we would have to start the trade schools as the new men came in.

Mr. KELLEY. In answer to your question, I would expect the efficient Secretary of the Navy to work out the best and most economical system under which to carry out the will of Congress to maintain a strength of 65,000 men on the 1st day of July. Of course, the Secretary of the Navy is under some difficulty in doing that, but this bill probably will not become a law immediately, even if it passes the House. Therefore that is a question that you will have to consider. I think we had better leave that particular question and take up the matter of the expiration of enlistments, so that we may know exactly how they will go out.

REDUCTION OF SHORE-STATION ACTIVITIES.

Admiral. I think you had some particular method in mind for reducing the shore-station activities.

Admiral COONTZ. We have reduced certain stations, and if the Navy should by any chance be reduced to 65,000 men a number of shore stations would probably be closed. You would have a limited working on account of the shore stations, but I agree with what Captain Williams says in regard to that; that is, that it will require a law to get rid of these men before the 1st of July. Then, on the 2d day of July we will have to commence recruiting, and the green men who are recruited will have to be trained.

Mr. KELLEY. I understood Captain Williams to state the other day that these men who have been in the Navy are standing around waiting to be reenlisted, and you will not have to train them at all.

Captain WILLIAMS. You misunderstood me. These men are standing around the recruiting stations waiting to see what will happen before they reenlist.

Mr. KELLEY. That is practically the same thing.

Captain WILLIAMS. These are trained men.

Mr. BYRNES. What do you mean by that statement?

Captain WILLIAMS. Let us suppose the case of a machinist, who has been brought from home at Government expense and trained in a Government trade school, and he goes aboard a ship. At the expiration of his four years' enlistment, he goes out into civil life, and there are a number of those men who are lying around the recruiting offices refusing to reenlist until they find out what is going to happen to the Navy personnel.

Mr. KELLEY. How does that differ from what I said?

Mr. BYRNES. Why should they hang around to see what is going to happen to the Navy personnel?

Secretary DENBY. They may think that they will have a chance for promotion, better pay, and that sort of thing.

Mr. BYRNES. I can see their reason for standing around waiting on account of the matter of pay, but I did not understand the other part of your statement to the effect that they were standing around to see what would happen to the Navy personnel.

Captain WILLIAMS. In the matter of pay, promotions, and everything else.

DISTRIBUTION OF PERSONNEL BY CLASSES.

Mr. KELLEY. Captain Williams, I would like to have you study pretty carefully the distribution of the personnel of the Navy by classes. If there is to be a reduction, of course, it should not all be from the bottom, but it should come all the way down. I should like to have you work that out pretty carefully.

Captain WILLIAMS. I have studied that pretty carefully, and have some ideas on the subject.

Colonel ROOSEVELT. There have been two full surveys made of that question, and, in addition to what Captain Williams has said, there have been at least two other officers who have been making personnel studies.

Mr. KELLEY. With the new situation, and with the taking out of these old craft, there will be some further surveys to be made. This will be a wholesale job requiring a resurvey, following the scrapping of so many battleships and other craft.

WEDNESDAY, MARCH 15, 1922.

Mr. KELLEY. Admiral Coontz, you were going to have an apportionment of the 50,000 men prepared.

Admiral COONTZ. The Secretary has not had time to go over it, Mr. Chairman. He has been before the other committee, and he has had to have it postponed until he could get around to it.

Colonel ROOSEVELT. The rough draft is ready, but the Secretary has not had time to go over it.

Mr. KELLEY. I thought it would be helpful to us to have it before us.

Admiral COONTZ. It will be submitted as quickly as possible.

Mr. KELLEY. We have with us this morning the Assistant Secretary of the Navy, Admiral Coontz, Captain Williams, and their assistants. I think we will hear Captain Williams first.

Captain Williams, how many men have you in each rating beginning with the highest enlisted rating in the Navy and going n down to the lowest?

NUMBER OF ENLISTED MEN ON HAND IN NAVY BY RATINGS.

Captain WILLIAMS. Chief petty officers, permanent, 8,420; petty officers, acting, 3,112; petty officers of the first class, 12,133; petty officers of the second class, 10,865; petty officers of the third class, 10,172; firemen of the first class, 3,827; firemen of the second class, 5,528; firemen of the third class, 7,522; nonrated men, first class, 12,248; nonrated men, second class, 15,072; nonrated men of the third class, 773; cabin stewards and cooks, 778; wardroom stewards and cooks, 591; steerage stewards and cooks, 102; wardroom stewards and cooks, 201; mess attendants, first class, 1,607; mess attendants, second class, 1,060; mess attendants, third class, 1,110; making a total of 95,118 as of March 13, 1922.

Mr. KELLEY. How could you get this up so close to date?

Captain WILLIAMS. I do not say it is so close.

Mr. KELLEY. That is the date on which you prepared the report?

Captain WILLIAMS. That is the date on which we prepared the report.

Mr. KELLEY. It was prepared upon what data?

Captain WILLIAMS. It was prepared upon the best data available.

Mr. KELLEY. How recent?

Captain WILLIAMS. It was prepared from data that we have in the office up to date.

Mr. KELLEY. You would naturally be behind on promotions were made on shipboard?

Captain WILLIAMS. We have a technical word which we call "lag." It means that we can not be absolutely up to date, not only in the matter of promotions but in other ways.

Mr. KELLEY. How far behind will the office down here be?

Captain WILLIAMS. I should hate to estimate, because it is only a very rough guess for reasons that I explained the other day.

Mr. KELLEY. A couple of months?

Captain WILLIAMS. It might be in some cases more than that. In some cases it might be absolutely up to date. The character of the data is such, of course, that it is based largely upon reports by mail, and the more widely scattered the force the greater the lag you must allow for it. That is what we call "lag," but it is not, subject to the "lag," is as accurate as any, or more accurate than we have ever had before.

Mr. KELLEY. Do you know how many enlistments expire of those ratings?

MEN DISCHARGED, DESERTED, RETIRED, DEAD, 1918, 21.

tain WILLIAMS. I have data covering the expirations of enlistments. As for the expiration of enlistments for the fiscal year ending June 30, 1923, I have it in several different ways, but I see I have not got it in the way you want it. You want the expirations by months?

KELLEY. Yes. My recollection is that that is a very difficult thing to compile.

tain WILLIAMS. Yes, sir; it is difficult. We have compiled it by months, for July, August, etc., up to June. This shows three-year enlistments, four-year enlistments, expirations of second-year enlistments, minority, etc. That is tabulated, but I have not got it by months.

KELLEY. Have you the number of enlistments of two-year men, three-year men, and four-year men?

tain WILLIAMS. Yes, sir.

KELLEY. How many four-year enlistments are there now in the service? Have you that information?

tain WILLIAMS. Yes, sir. I want to get this part very accurately, because the foundation is very important for the structure.

FRENCH. I wonder if the expirations of enlistments would run approximately according to the number of men in each one of those categories?

tain WILLIAMS. No, sir; I do not think so.

KELLEY. The long enlistments are in the upper ratings, aren't they?

tain WILLIAMS. Perhaps so and perhaps not. I think we would lead ourselves into false conclusions if we adopted any average.

I would like to show you this table that we have gotten up.

KELLEY. Suppose you go ahead in the most illuminating way you know how, and if you do not throw all the light upon the subject that is desired, we can ask for more.

tain WILLIAMS. Meanwhile, perhaps this table would be interesting to you. This is the most complex piece of statistics we have produced. That gives them by fractions. The point I would like to call attention to in that table is that it includes not only expirations of enlistments, but it also includes actual discharges from other causes, deaths, desertions, etc., and that is the history of enlisted personnel as far as our records have been able to reach.

KELLEY. I think it is a fine table, and we will put it in the record. This is a table showing the losses by months from various causes for 1921.

tain WILLIAMS. It is very conservative and has been carefully checked. I do not think you could do better than to have that table tabulated.

(The table referred to is as follows:)

Men separated from the naval service from November 11, 1918, to December 31, 1921.

	Dis- charged.	Deserted.	Retired.	Dead.	Total.
Nov. 11 to Nov. 30, 1918.....	8,185	536	13	68	8,802
1919.....	167,059	9,537	142	1,000	177,738
1920.....	39,680	12,777	51	64	52,572
1921.....	67,360	8,013	83	50	75,406
Total.....	282,284	30,863	246	2,499	313,892

	Dis- charged.	Deserted.	Retired.	Dead.
1918.....				
Nov. 11 to Nov. 30.....	1,283	100	0	8
December.....	6,902	436	13	0
1919.....				
January.....	13,630	597	9	8
February.....	17,394	737	21	3
March.....	13,970	607	12	0
April.....	9,902	683	12	3
May.....	7,863	836	14	0
June.....	10,708	812	16	1
July.....	17,952	710	15	3
August.....	24,027	831	6	1
September.....	23,883	741	13	1
October.....	17,983	963	6	1
November.....	12,461	985	6	1
December.....	8,826	1,035	9	1
1920.....				
January.....	4,662	808	7	1
February.....	2,723	785	3	0
March.....	3,448	882	6	0
April.....	2,816	804	3	0
May.....	2,982	682	6	0
June.....	2,828	937	5	0
July.....	4,521	917	3	0
August.....	5,746	927	3	0
September.....	3,688	1,054	3	0
October.....	2,547	909	3	0
November.....	2,608	1,053	2	0
December.....	1,021	2,945	1	0
1921.....				
January.....	3,824	1,413	4	0
February.....	7,412	1,141	1	0
March.....	9,130	694	2	0
April.....	3,511	626	5	0
May.....	3,384	494	6	0
June.....	7,880	630	1	0
July.....	6,194	693	3	0
August.....	9,270	696	28	0
September.....	5,621	518	7	0
October.....	3,078	457	9	0
November.....	1,919	379	10	0
December.....	6,098	328	5	0
Total.....	282,284	30,863	246	249

SUMMARY OF LOSSES BY DATE OF RECEIPT IN BUREAU, 1921.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
d.....	1,413	1,141	698	626	494	630	663	666	518	457	379	328	8,031
ble.....	786	388	239	460	915	6,069	4,063	4,233	2,708	1,420	773	962	23,016
y.....	76	26	5	12	7	0	357	254	158	167	65	29	1,156
.....	64	34	24	15	51	31	52	101	54	57	39	46	568
.....	568	674	445	287	312	126	160	88	72	41	40	45	2,858
.....	824	1,518	1,647	807	532	251	370	460	308	281	183	210	7,392
.....	316	441	717	587	464	281	402	455	386	336	283	318	4,986
.....	228	299	478	338	173	143	110	206	175	164	236	181	2,746
tr.....	354	402	287	291	266	235	242	449	370	212	161	198	3,452
.....	1	2	4	2	0	0	3	1	0	0	1	0	14
.....	2	3	1	4	3	0	6	0	0	0	0	0	21
rd.....	353	3,612	5,272	657	579	719	414	3,008	1,387	392	157	4,102	20,652
.....	252	14	9	54	81	31	21	9	2	8	11	7	499
.....	4	1	2	5	6	1	5	28	7	9	10	5	83
.....	64	59	84	44	40	38	29	36	38	23	24	21	500
otal.....	5,305	8,613	9,914	4,186	3,924	8,558	6,891	10,000	6,184	3,567	2,362	6,452	75,956

DESERTIONS BY DATE OF RECEIPT IN THE BUREAU, 1921.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
.....	8	6	3	6	5	11	4	1	7	8	3	2	64
.....	129	92	73	80	61	75	90	118	85	95	62	60	1,020
.....	240	305	130	83	53	41	48	12	32	12	17	29	1,012
.....	394	204	166	121	107	185	200	203	134	143	107	99	2,063
otal.....	771	607	372	290	226	212	342	264	258	258	281	170	4,159

SUMMARY OF LOSSES BY DATES OF RECEIPT IN BUREAU.

	1919		1920											
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
.....	985	1,035	898	765	882	804	682	937	917	927	1,058	909	1,053	1,021
.....	9,628	5,910	2,762	1,353	1,386	1,073	1,243	3,388	3,143	4,286	2,151	1,025	935	816
.....	1,887	1,916	295	104	80	74	45	54	135	123	62	61	56	57
R.....	45	42	43	35	56	58	51	63	72	47	58	60	53	57
.....	44	8	13	12	12	12	11	22	132	249	256	317	348	442
.....	716	605	544	389	652	514	577	439	226	257	244	225	231	310
.....	232	281	265	180	386	276	228	213	154	178	189	183	234	217
.....	180	191	88	97	169	189	194	142	140	87	191	174	176	329
.....	402	394	239	323	439	388	362	302	276	354	353	338	353	394
.....	8	22	11	4	2	4	4	4	1	1	3	2	.....	.....
.....	440	382	372	233	222	180	208	226	190	112	96	85	151	134
.....	25	22	25	22	39	47	57	37	50	52	84	77	131	189
.....	64	64	5	1	5	1	2	1	2	.....	1	.....	.....	.....
.....	6	9	7	3	6	5	6	5	3	5	3	3	2	3
.....	36	42	27	146	162	78	54	27	29	36	26	36	21	39
otal.....	13,634	9,923	5,594	3,607	4,498	3,703	3,724	5,860	5,470	6,714	4,775	3,495	3,744	4,008

usive recruiting.

SUMMARY OF DESERTIONS BY DATES OF RECEIPT IN BUREAU, 1920.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Total.	Nov.	Dec.
(all kinds).....	13	7	12	1	9	9	5	8	11	8	83	14	8
.....	86	53	87	85	80	92	94	112	108	83	880	103	78
.., seamen.....	226	242	217	249	157	199	171	193	201	204	2,059	233	239
.....	228	145	203	151	153	219	245	204	268	187	2,003	218	187
otal.....	553	447	519	486	399	519	515	517	588	482	5,025	568	512

Mr. KELLEY. You can put in your estimate for 1923 by any definite number of men, I suppose, in the same manner?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Based upon a certain date and brought down to a certain date?

Captain WILLIAMS. With this difference, that that table there is all history, and our estimates are part prophecy. That is the time we had the actual facts; and, I think, that runs back to 1918.

Mr. KELLEY. You have given us here a total of 95,118 men Navy by ratings on the last available date?

Captain WILLIAMS. Yes, sir.

ESTIMATED NUMBER OF MEN THE NAVY WILL LOSE IN MARCH, APRIL, MAY, AND JUNE, 1922.

Mr. KELLEY. Now, how many men for all classes do you estimate you will lose during the month of March?

Captain WILLIAMS. That is another question; and I thought started on the expirations of enlistments. This is not the same. I gave that as 2,175 for the month of March; for April, 2,201; May, 2,448; and for June, 2,544.

Mr. KELLEY. That brings us up to the 1st of July?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Let us go right along with the next year by months.

Captain WILLIAMS. I am sorry I have not that.

Mr. KELLEY. You did not tabulate that at all?

Captain WILLIAMS. With some limitations—the further you go the less valuable the predictions. The predictions for March and April have a certain permanent value; but, when you go to September, October, and November, the prediction gradually decreases in value until it is almost valueless.

Mr. KELLEY. Of course, you know how many expirations there are in each month right along?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You know about what losses there will be from expirations each month?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Based upon your experience?

Captain WILLIAMS. No, sir; that is where we have fallen down for a long time. That is the important part of it. You have expirations of enlistments as one type of loss in the personnel; you have discharges for inaptitude; you have discharges for inability; you have bad-conduct discharges; you have dishonorable discharges; you have medical surveys; you have men on furlough; you have men who die.

Mr. KELLEY. Is this what you are saying now, that that is the only way for causes other than expiration of enlistments will be lost? You get out of the Navy the undesirables in the early months, and there is a constant factor of undesirability even in the early months?

Captain WILLIAMS. Like all percentages, a percentage of loss would be of little value; a percentage based on two months would be a little better, and as the time increases the percentage of loss would be better. Now, with normal conditions, and giving a normal

50,000 men of average classes, ages, and types, in a little while, or a year or two years, you could determine the average, perhaps, of each one of those peculiarities, or the monthly average on each one of those questions you have asked; but in the last two years we have not had that standardized number or standardized type, and I am pretty well convinced that we should approach those averages with a very greatest caution and with the very greatest possible qualification. That is the reason I hesitate to give those figures. It is a very rough prophecy, and I understand why you want it.

Colonel ROOSEVELT. Does the figure you have already given represent the gross loss, or have you taken into account reenlistments?

Captain WILLIAMS. I have considered 50 per cent of reenlistments. My assumptions are very numerous.

MONTHLY ENLISTMENTS.

Mr. KELLEY. In order that the information we get may have all the value possible, I will ask you this: How many enlistments will there be by months, starting on the 1st of July?

Captain WILLIAMS. This last figure I gave you brought the total down to 85,000. Now, assuming that we have the number at 85,000, I can give you the figures from July 1, 1922, to July 1, 1923.

Mr. KELLEY. All right; go ahead.

Captain WILLIAMS. This will run regularly, July, August, September, October, etc., and the numbers are as follows: 2,492, 2,504, 2,450, 2,562, 3,125, 3,376, 2,399, 2,347, 2,145—

Mr. KELLEY (interposing). What was the figure for January?

Captain WILLIAMS. Two thousand three hundred and ninety-nine; for February, 2,347; for March, 2,145; for April, 2,282; for May, 2,134; and for June, 2,038.

Mr. KELLEY. These are based upon expirations for all other causes?

Captain WILLIAMS. This takes into account a lot of assumptions. We have estimated the number in service for each month, and we have figured out the number of expirations during that month. We have assumed that 50 per cent of those men will reenlist, and we have then applied the losses from other causes, and the algebraic sum of that is the total loss. That is quite different from the same figures, without qualifications, that we were speaking about. The point I want to give you is the fact that the losses include 50 per cent of reenlistments.

Mr. KELLEY. These figures now include the expirations, and they cover your best judgment as to other losses?

Captain WILLIAMS. Yes, sir.

TOTAL ENLISTMENTS FOR FISCAL YEAR 1922-23.

Mr. KELLEY. What do they total?

Captain WILLIAMS. Thirty thousand eight hundred and seventy-four. That is for a year.

Mr. FRENCH. That includes only the reenlistments, without any other additions. Does it include the reenlistments?

Captain WILLIAMS. Yes, sir.

Mr. FRENCH. Reenlistments, but not new enlistments—is that right?

Captain WILLIAMS. It includes 50 per cent reenlistments.

Mr. FRENCH. But no new enlistments?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Does this include 50 per cent reenlistments right at the beginning of the table?

Captain WILLIAMS. Yes, sir.

Mr. FRENCH. But that does not include reenlistments from now until the 1st of July, or the table you gave us first did not?

Captain WILLIAMS. The table I gave at first is exactly the same. It follows the same rule.

Mr. KELLEY. This table showing the losses during a year four months, and during the balance of this year and all of next year, shows approximately 40,000 men, and it includes the losses from expiration of enlistments and other causes, less reenlistments amounting to 50 per cent?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. So that, if you get back by reenlistments 50 per cent each month right along, the Navy would stand a year from July at approximately 55,000 men?

Colonel ROOSEVELT. That is the net loss all the way through the year, as I understand it, Mr. Chairman.

Captain WILLIAMS. 54,537 is our best prophecy.

Mr. KELLEY. So you could reenlist half of those whose terms expire if you did not take in any new ones and the Navy would run down to the 1st of July, 1923, to 54,537.

Captain WILLIAMS. Within the limits of accuracy.

METHOD OF KEEPING NAVY AT AN AVERAGE OF 65,000 MEN.

Mr. KELLEY. What would be your policy, Captain? Suppose we were given an average of 65,000 for next year, taking the Navy as we have it at this moment and desiring, of course, to work it out to have it in the most effective situation, how would you go about securing an average of 65,000 men after the 1st of July?

Captain WILLIAMS. May I reply to that by calling attention to two most prominent ways of doing it, and, perhaps, the advantages and disadvantages of each? We want 65,000 men, speaking in round numbers, for the fiscal year 1923. There are two ways, perhaps, of doing it. One is by having 65,000 men on July 1, 1922, making the losses that occur in 1923 and standardizing the quality of personnel to the best of our ability. That is a problem the execution of which leads you into great difficulty, and the more thought I give the subject the more difficulties I find. We want 65,000 men on July 1, 1922, and the character and quality of our personnel at the present time is such that that seems the best way to go at it.

Let us say you open the gates for discharge and you encourage in every way to leave the service, the men we have now, let us say 95,000 in round numbers, and you get down to 65,000 men on July 1. That is a supposition. Let us say we have succeeded in doing it; enough men will leave the service to bring it down to 65,000 on July 1; it is fair to suppose that the men who will go out are in the ratings, the men who have been there the least, the men who have the least interest, who have less ties to the service; the higher ratings, the trained men, perhaps, will tend to remain;

en who have, many of them, been in the service long years, and it could be difficult, and perhaps undesirable, to run the Navy composed entirely of those men.

ADVISABILITY OF USING MEN OF HIGHER RATINGS TO PERFORM WORK OCCASIONED BY
DISCHARGE OF NEW MEN.

Mr. KELLEY. There would be some positions that would be rather inferior to their rank.

Captain WILLIAMS. I am coming to that. It would be too extensive to start with, and for other reasons. Suppose we undertook to take that nucleus and form our personnel by reducing these men, by putting them in lower ratings and by giving them work to do from which they in the past have graduated? I need not speak of the loss of morale. There are other phases, too, which must be given the most careful consideration.

These men, in almost all cases, have been brought up with a feeling that there were certain obligations; that there were certain rights, moral rights, but perhaps not legal rights, which they acquired by good conduct, by good behavior, by faithful performance of duty, and by all the things which have brought them where they are. I will not go into the details of that because I think the committee knows how complicated they are. It is not a question of referring the thing to the comptroller, but it is a question of referring the thing to the man himself. It leads you all through the right or wrong of recruiting promises, of vested rights, of experience, and all that sort of thing. So you can readily see, without speaking any more of it, that we would have a very large number of men who would have to be either separated from the service or treated in a way which they would consider utter injustice.

Mr. KELLEY. Let me put in one question right there, Captain. The present pay rates expire on the 1st of July?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. I suppose that as to the men in the higher ratings it could make a great deal of difference whether that pay were continued or not, or whether it were materially modified.

Captain WILLIAMS. It would make the greatest difference in the world.

Mr. KELLEY. I figured the other day, after you had said that men were waiting around the enlistment places, that possibly they were waiting because of the fact that the question of pay had not yet been decided.

Captain WILLIAMS. Perhaps so, that and other things.

Mr. KELLEY. That would probably explain why they were waiting.

Captain WILLIAMS. Partly, perhaps.

Mr. KELLEY. By the way, you are not reenlisting for a shorter period than four years, are you?

Captain WILLIAMS. No, sir; this question is a very important one. Suppose you have solved that problem? It will take time to do it, and it will be an unfortunate period through which we will have to pass. You have got to start enlisting—

Mr. KELLEY (interposing). Just before you discuss the other method—

Captain WILLIAMS (interposing). I want to fir

Mr. KELLEY. You have not finished this one yet?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Of reducing it to 65,000 by July 1?

Captain WILLIAMS. No, sir. Suppose you reduce by July 1 have got down to 65,000. Now, you have got to start recruiting immediately.

Mr. KELLEY. You have done that?

Captain WILLIAMS. You have got to start your training immediately.

Mr. KELLEY. You said you have got to start recruiting ately.

Captain WILLIAMS. Yes, sir.

AUTHORITY TO FURLOUGH MEN.

Mr. KELLEY. Just before you start in on that, let me ask a question. Here is the authority of law under which the Secretary of the Navy is authorized to grant furloughs, and I will read so as to get it in the record:

The Secretary of the Navy is hereby authorized to grant furlough with pay to enlisted men for a period covering the unexpired portion of their enlistments: *Provided*, That such furlough be granted under the same conditions and in lieu of discharge by purchase or by special order of the department. Enlisted men so furloughed shall be subject to recall in time of war or emergency to complete the unexpired term of their enlistment, and in addition to the authorized number of enlisted men of the Navy.

You can not recall a furloughed man except in case of war; is that right?

Captain WILLIAMS. I think you can recall him at his own request. I have considered that phase of it slightly, and I do not think that is the cure, but I am not prepared to say. The question I am thinking of is a very difficult question.

Mr. KELLEY. I know, but if there were no other obstacle, you could furlough a man until you needed him, and then call him back to take the place of expired enlistments, or if you had that kind, you would not meet the obstacles you spoke of a moment ago about starting up your recruiting and all that.

IMPRACTICABILITY OF FURLOUGHING MEN TO REDUCE SIZE OF NAVY.

Captain WILLIAMS. I have thought of that, but I do not think it is practicable, and I think you are asking too much and getting too little.

Mr. FRENCH. Would there be any sort of pay for the furloughed men?

Colonel ROOSEVELT. After they get settled in other business, they could not get them back.

Mr. BYRNES. You would have to assume they would have any other business, I suppose, and that is the trouble.

Mr. KELLEY. You would have no trouble under this of furloughing your men; you could pick out your men under this and furlough them, could you not?

Captain WILLIAMS. I do not think we could do that; certainly could not do it without legislation.

Mr. KELLEY. Why not? Suppose you gave him to understand at while he was furloughed, at the same time he would not be lled back?

Captain WILLIAMS. I do not think the average man would take ay such contract, to force a man to go on furlough and tell him ou would not call him back; he would get a job in civil life.

Mr. KELLEY. Suppose you told him you would not call him at l, you could furlough him?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You were saying you had experienced some difficulty getting rid of particular men.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That the ones at the bottom would go and the ones the top might stay, but it seems to me under that act you have uthority to pick out any you wanted and furlough them for the st of their enlistment.

Captain WILLIAMS. Indefinite furloughs without pay?

Mr. KELLEY. Yes.

Captain WILLIAMS. And then call them back?

Mr. KELLEY. At the same time telling them you do not intend to ll them back at all.

Captain WILLIAMS. I think you make a bad situation worse.

Mr. KELLEY. Why? For instance, you have here, Captain——

Captain WILLIAMS (interposing). Let us take the principle of ie furlough.

Mr. KELLEY. Just a second until I get our minds together. You ave here 8,420 chief petty permanent officers?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You might not want that many with a Navy of 5,000, and under that act you would have full authority to furlough ose men.

Captain WILLIAMS. Without pay?

Mr. KELLEY. Without pay, and notify them that you would not pect them to come back at all.

Captain WILLIAMS. That is the difficulty I am speaking of.

Mr. KELLEY. And, then, you could pick out the ones in each rating at you did not need under the furlough system.

Captain WILLIAMS. That is the exact difficulty; whether you fur-ugh them or discharge them makes little or no difference to the en.

AUTHORITY TO DISCHARGE MEN.

Mr. KELLEY. Would you have authority to discharge outright?

Captain WILLIAMS. Yes, sir; we have the legal right.

Mr. KELLEY. Then the thing is as broad as it is long.

Captain WILLIAMS. There is not any difference, but the point is e have never discharged these men in the Navy except at their wn request or except as a punishment, and that is the law these en have had read to them every month.

Mr. KELLEY. There is no trouble about getting the whole number own, as I take it, but the trouble is in getting down the number by ades, the proportion in each grade.

Captain WILLIAMS. I have more troubles to voice; I have not nished this first proposition.

Mr. KELLEY. You would not have any difficulty in raising Navy to 65,000 if you let everybody go who wanted to keep your grades proportionate might be a little more d

Captain WILLIAMS. No, sir; that is not the whole story.

Mr. KELLEY. Well, give us the rest of it.

Captain WILLIAMS. In the first place, a man's enlistment as a matter of pure legal right, contains the clause, "until discharged by proper authority." That has never been done with these men, except they have been discharged as a punishment at their own request, or for bad conduct.

FURLOUGH OF MEN AT THEIR OWN REQUEST.

Mr. KELLEY. You have furloughed men except upon their own request, have you not?

Captain WILLIAMS. We have not furloughed them except at their own request.

Colonel ROOSEVELT. I am no lawyer, but this act says the Secretary of the Navy is authorized to grant a furlough without pay. I should think that word "grant" might be held by the courts not giving the Secretary of the Navy the right to impose a furlough but that he would have to do it at the request of the individual. It would fit.

Mr. BYRNES. The trouble is the proviso says it shall be in discharge.

Colonel ROOSEVELT. An individual might have requested a discharge, and the Secretary of the Navy might be unwilling to give a discharge, because that severs him completely from the Navy. However, he might be willing to grant a furlough without pay, which still leaves the Navy the option of calling the individual back in time of war.

Commander HILL. And that act was passed before we entered war, and undoubtedly that was the intent of it. It was the act of August 29, 1916.

Colonel ROOSEVELT. I think that is the situation. You see you get rid of him for good and all. Suppose we thought of the possibility of a war within a year and some of our important officers wanted to be discharged to go into business, the Secretary of the Navy might say, "No; I do not want to discharge you; we might want you when a war begins, but I will give you a furlough which will let you engage in that business, and then if a war comes we will call you back." That is my interpretation of the act although I may be wrong.

Mr. KELLEY. There is no question as to the authority of the Department to discharge outright, and this would be a matter less than discharging, so I am inclined to think that might be done as giving authority to the Secretary to act independently on application, but of course lawyers differ just as much as officers, and that is going quite a little.

Captain WILLIAMS. I was only suggesting many of them so that you might get the idea that after all this figuring it may be necessary to design some personnel legislation to put this thing into effect in the proper way. You do not want to throw these people out, men who have been 15 and 20 years in

u do not want to force them on the Naval Reserve against ill. What personnel legislation we may need remains to be id this is very preliminary.

CELLEY. We can take care of that on this bill if it involves a on. Under the rules of the House a reduction in the number s or men can be provided for an appropriation bill.

in WILLIAMS. But this is not exactly a case of reduction; it sition of how the reduction shall be carred out.

CELLEY. I know; but all collateral propositions can go witha n proposition of reduction.

MBER OF MEN NECESSARY TO BE KEPT IN TRAINING TO REDUCE NAVY.

in WILLIAMS. I think the next thing you wanted is what hap- xt. We are always talking about proposition 1, 65,000 men 1, and we have not departed from that.

CELLEY. You have finished the first proposition by getting hem between now and July 1.

in WILLIAMS. No, sir; I have not finished this. I have put in the form of a note and I will ask to read it, and maybe it e time. Assuming that we will be at a strength of 65,000 men f next July, and that the voluntary discharges to reach this would be about 21,000 men, all to come from the 1923 fiscal charges, there would still be a loss by expiration of enlist- 1 1923, of 20,000 men. In addition to the foregoing, it is d that the losses during that year from other causes than on of enlistment would be about 8,000 men, or, in other here would have to be a total displacement of 28,000 men. g in round numbers that there would have to be a replace- 2,400 men per month—I do not like that word—and that n would spend at the training station two months plus two 1 travel time in reaching the training station after recruit- 1 traveling from the training station to his ship, we would ave an average of 6,000 men at the training stations through- iscal year. Is that plain?

ELLEY. No. Six thousand men graduated every two months ive you 36,000 men.

in WILLIAMS. I have accounted for 28,000, and that would —no; that is wrong; we have not allowed for the two weeks.

ELLEY. Would that throw it off that much?

in WILLIAMS. Yes, sir.

CELLEY. Let us cut the two weeks off and give them two there.

in WILLIAMS. They would not get warm in that time. Esti- an additional 1,000 at the training stations as a permanent d for training purposes and for recruits for the fiscal year an of 7,000 men per month at training stations, which is in to the 15,000 which have been allowed by operations in the ay.

ELLEY. You will get this into the latest work of fiction if on.

in WILLIAMS. No; I am digging it out. To state this prob- her way, if this were the first cut we had had in three years, be a different problem, but cut after cut has taken place

since demobilization. Now, we are dealing with not dealing with matériel. What is the result of this in year we have been struggling along on something less than 10 Now, call it 100,000. Over 50 per cent of those people are in enlistment. That means a great many things, but it means other things that 50,000, or 50 per cent of those people go out same time, or almost at the same time. I think that we between now and July 1 in the fiscal year 1923 forty-odd men; that is, for the fiscal year 1923, and you can not take men and assume you are going to take those off the 96,000 and others left.

Mr. KELLEY. You have not run the training schools very well this year, have you? You have only had two or three thousand training?

Captain WILLIAMS. Yes.

Mr. KELLEY. And you consider that enough with 100,000?

Captain WILLIAMS. That has nothing to do with the 100,000.

Mr. KELLEY. Just answer me directly. You have enough training schools with 100,000 men?

Captain WILLIAMS. That has no connection with it.

NUMBER OF MEN LEAVING NAVY DURING PAST YEAR.

Mr. KELLEY. How many men have left the Navy during the last year?

Captain WILLIAMS. At training schools—

Mr. KELLEY (interposing). Never mind the training schools. How many have left the Navy during the last year?

Captain WILLIAMS. That is a direct relative of the \$77.0 pay of the Navy.

Mr. KELLEY. How many men have left the Navy during the last year?

Captain WILLIAMS. It has nothing to do with it, but I can answer you.

Mr. KELLEY. Well, give it to us. I remember it was estimated 40,000 at least would leave after the 1st of July during the last year. When you were here last time and we were making the bill it was estimated that there would be something like 40,000 dispirations of enlistment, and then there would be quite a number added to that. If you can take care of forty-odd thousand dispirations of enlistment and have only 2,000 in the training schools is there in the situation next year that requires you to have enormous training as you are talking about?

AVERAGE NUMBER OF MEN ON HAND IN NAVY DURING PAST YEAR.

Captain WILLIAMS. Let us go back to the time when we had these statistics, and you know they did not exist before 1916.

Colonel ROOSEVELT. Captain, may I ask you to do it a little more clearly? On July 1 of last year had you 116,000 men in the Navy?

Captain WILLIAMS. On July 1 of last year we had the average was left of an average of 120,000 men.

lonel ROOSEVELT. That was 116,000, as I recall. Therefore, we gone down 20,000 men.

. KELLEY. No; you were authorized to keep 106,000.

lonel ROOSEVELT. Yes; but we had to average it, so we are only 0 now.

. KELLEY. You see, all you had to do was to come down from 00, as I recollect, on the 1st of July, to 106,000 during the year der to keep your average right, and as there were only 10,000 involved there, it would not change this training-school situa-

lonel ROOSEVELT. I think it would materially. As I understand r cuts have been going along in this way: At the first of the year we were met with a bill from Congress saying that we have only an average of, let us say, 100,000 men during the year; we have not attempted to reach that figure for the first 3 coming fiscal year, but we have gone down gradually over the 3 year, so that whereas we had 116,000 to start the year, at the 3 of the year we would have 90,000 in order that the average t be the figure Congress set. Now, that materially lessens the 3 er of men we would have in our training stations, and, you 3 e have now gotten down to the point where, if we try to have, 3 say, 90,000 men on the 1st of the coming July, we would have t down to the all-inclusive figure of 50,000 at the end of the if we were going to run out in the same way, and the all- sive figure of 50,000 would change the figure, assuming that figure on shore stations is correct, as to the number of men we d have in the fleet afloat at the end of the coming year from 0 to 35,000.

. KELLEY. Here is what you have evidently done during the year: You have made up your list by recruiting those that have dy served in the Navy and that is what you are doing next year. ptain WILLIAMS. Of course, to a large extent.

. KELLEY. That eliminates the training school proposition st wholly except for the few boys you need to scrub decks.

PERCENTAGE OF FIRST ENLISTMENTS, 1920-21.

ptain WILLIAMS. No, sir; that is not all. Mind you, the propo- i I am talking about—you may call it scheme 1—of getting i to 65,000, is a scheme we have not tried, and ever since 1919 ave suffered from the application of the other system to our tions. Now, the result of that is perfectly apparent. In 1919 ercentage of first enlistments was 26; in 1920, 31; and in 1921, nd it would take a very careful analytical study to show why is the net result of these cuts.

DISTRIBUTION OF RATINGS IN DECREASING NAVY.

. KELLEY. I think we have the general principles and the prin- difficulties, but what I would like for you to submit, Captain, is number is established at 65,000, how are you going to dis- te them in these ratings?

ptain WILLIAMS. This is the best I can do under the circum- es:

petty officers (permanent appointment)----- 6,762

Mr. KELLEY. And acting?

Captain WILLIAMS. I left that out.

Petty officers, first class.....	1	
Petty officers, second class.....	2	
Petty officers, third class.....		
Firemen, first class.....		
Firemen, second class.....	2	
Firemen, third class.....		
Nonrated men, first class.....	1	
Nonrated men, second class.....	1	
Nonrated men, third class.....		
Cabin stewards and cooks.....	1	
Wardroom stewards and cooks.....	1	
Steerage stewards and cooks.....		
Warrant officers, stewards, and cooks.....		
Mess attendants, first class.....		
Mess attendants, second class.....		
Mess attendants, third class.....		
Total.....	6	

That is provisional and for the moment is the best we have.

CHIEF PETTY OFFICERS REQUIRED FOR UNITS OF 190,000 MEN AND 65,000

Mr. KELLEY. You remember when Captain Leigh was down in your place, do you not?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. On the basis of 190,000 men, Captain Leigh said that you would need 7,439 chief petty officers.

Captain WILLIAMS. Seven thousand?

Mr. KELLEY. Yes, sir; on the basis of 190,000 men in 1919. This was November 1, 1919. You have 8,420 chief petty officers plus 312, or 8,732 chief petty officers, with 100,000 men in the fleet.

Captain WILLIAMS. There is a difference of opinion. We at it from half a dozen different points of view. In the end we know the difference. We know that is not entirely due to the 65,000 and the 190,000. You see, we know there is a difference of opinion which you and I have spoken of before. It is, of course, on the service they are engaged in, the size of the fleet, and various other elements besides the 190,000.

Mr. KELLEY. They are about the same ships?

Captain WILLIAMS. I do not care to waste any time on that. I did you say that was?

Mr. KELLEY. In 1919.

Captain WILLIAMS. In 1919, we were then struggling through a period of demobilization. The demobilization was still in progress. We have never in our lives been accustomed to handling and dealing with these minute personnel statistics. I will leave it to you for a final answer to the proposition. I think Captain Leigh has been taken. Captain Leigh might turn up and say I am not sure we have machines we use for getting the statistics, which we do not have.

Mr. KELLEY. Is not this the explanation of it, Captain Williams? The war you had to have on all of these various ships, and the large numbers of men in the higher ratings, and the fact that the ships were discontinued, like the Overseas Transporters.

and all that, you found yourselves with these men in the higher things on your hands, and instead of letting them go in proportion whenever you made a reduction you made it at the bottom; is not that the explanation?

Captain WILLIAMS. That is partly the explanation.

Mr. KELLEY. Is not that the real meat in the coconut?

Captain WILLIAMS. No, sir; that is not all of it. Like all personnel problems, there were a dozen reasons for it. Here is a memorandum on the subject—that is not what you want. When we demobilized—

Mr. KELLEY (interposing). Let me say before you finish there that if a good strong allowance is made in these upper grades, which you have evidently done here—

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You do not think that is enough?

NUMBER OF CHIEF PETTY OFFICERS ON BASIS OF 119,000 MEN.

Commander LEAHY. No, sir. This statement which Captain Williams has read is an actual complement of the vessels enumerated to be kept in commission and is based on the shore establishment which he read the other day. That is an actual count of the number of men required, as near a count as we can get.

Mr. KELLEY. Captain, do you hear what the commander is saying?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That this is the actual number of places to be filled by these men.

Captain WILLIAMS. That goes without saying. You have a table of the number we want, and the problem that I submit to you is the difference between the two.

Mr. KELLEY. I thought you admitted that the numbers in the upper grades were excessive?

Captain WILLIAMS. Which numbers are you talking about?

Mr. KELLEY. The numbers in the upper grades, that not only were they excessive, due to the fact which I indicated a while ago—

Captain WILLIAMS (interposing). We have not spoken of that; we have not touched that subject. I might or might not. What we were talking about was plan 1, to get down to 65,000 on July 1, and we said it would open the gates, you remember, and allow these men to go out and that the people who would remain would be in the upper grades and that then they would be excessive.

Mr. KELLEY. Here is what Captain Leigh said: Chief petty officers that would be required on a basis of 119,000—the other I gave was 190,000—we are getting down to 119,000. Not only that, he claims they were in the service on November 1, 1919. I think this is based on 119,000 men. I think probably the table is mistaken in that respect. There must have been more than 119,000 in the service on November 1, 1919.

Admiral COONTZ. As you will remember, Mr. Kelley, we let everybody that wanted to go leave. We did not have men enough for the ships to get away.

Captain WILLIAMS. You can not justify that. On the 19th of November they had 12,000.

Mr. KELLEY. I remember this very well. It sheds light on this table. Your desire at that time was to keep these higher men, the men

in the higher ratings, because wage conditions outside better than on the inside, and as a result of that you had run in the Navy on that date to 3,000 chief petty officers, 7,000 of first class, 7,000 of the second class, 5,000 of the third class, and on, that there was a great shortage. Then, we increased the pay in order to correct that situation.

Captain WILLIAMS. I want to say that I do not believe much accuracy of those figures. Looking at them now, with the methods and all that sort of thing, I do not believe much in accuracy of those figures, although those were the best available.

NUMBER OF CHIEF PETTY OFFICERS IN NAVY NOVEMBER, 1919.

Mr. KELLEY. If you knew how many men in these different ratings we had on the 1st of July, 1916, that would aid us.

Colonel ROOSEVELT. I think the captain has a memorandum of what men we had at the time Captain Leigh testified, based on situation and count. I think that would help us to decide whether there had been a mistake made in Captain Leigh's testimony or not.

Mr. KELLEY. This table, in the first column, gives the number of men in the service on that date and it amounts to 119,000, which compares pretty well with what Admiral Coontz said. The Navy ran in the higher ratings where the skilled mechanics were lost.

Captain WILLIAMS. Here is the memorandum:

In the hearings on November 12, 1919, in connection with the pay bill of Captain Leigh submitted a table showing that there were 3,000 chief petty officers in the service; also certain requirements for various grades. These figures, according to Lieutenant Commander Soule, are based on estimates of a very vague character. They were so manifestly in error that a count was made as of November 15, 1919, and it was found that there were 12,668 chief petty officers in the service. We know now, after a most careful study, that we require about 9,752 chief petty officers for a navy of 150,000 men.

This is as of January 5, and has no reference to what I have just said.

REASONS FOR CHIEF PETTY OFFICERS LEAVING NAVY IN 1919.

Mr. KELLEY. Does that say that there were 12,000 chief petty officers at the time Captain Leigh made this statement?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. I think Captain Leigh's statement is nearer correct.

Captain WILLIAMS. Maybe so.

Mr. KELLEY. Otherwise, there would not have been any occasion for you coming down here and getting an increase of pay. It was the basis on which it was made.

Colonel ROOSEVELT. There is a question—who made it?

Mr. KELLEY. I know that we started in 1919 to reorganize the Navy because the number of skilled mechanics was not what it was in 1919 and it took us quite a little while to get it straightened out. It was a difficult job, but we finally did get it through, and on the whole argument—I made the argument at the time—on the fact that there was a tremendous shortage of chief petty officers. If you had had 12,000 chief petty officers at that time, we never have taken control of the bill.

Captain WILLIAMS. I have no more faith in 12,000 than I have in any other figure.

Mr. KELLEY. This figure is more apt to be correct?

Captain WILLIAMS. I am not prepared to say; I do not know. The statement that you make about the leaving of the highly trained men—the chief petty officers, mechanics, etc.—was discussed in the hearings for eight months.

Mr. KELLEY. A long time.

Captain WILLIAMS. It was not based on that figure or this figure; it was based on the most careful and long-continued study of the figures and facts. As you remember, I think that started in October, and I think the bill passed in May. It was not dependent on any one of these figures. The question of Captain Leigh's information, however, is so complicated and all that sort of thing that I can only take this as our best estimate based on the complements of the ships that we are contemplating.

Mr. KELLEY. They had substantially the same ships.

Mr. BYRNES. I would like to know whether you count the difference between 12,000 and 3,000—whose figures we can rely on? Did you make a real count of the men after the estimate furnished by Captain Leigh?

Commander LEAHY. This figure of 12,000 was furnished to me by the statistician of the Bureau of Navigation, and this count was made in November, 1919, and it was found that there was that number of chief petty officers in the Navy.

Mr. KELLEY. If you had told us that there were 12,000 chief petty officers in 1919, you would not have had much show of getting an increase in the pay of these officers.

Captain WILLIAMS. The question of 3,000 or 12,000 chief petty officers was not the question of the moment. It was a question that is discussed in the Naval Committee from October until May—not only the chief petty officers, but all the others. The fact that they were leaving was wholly apparent to every man in the country at that time. It was not a question of the difference between these figures. At that time they were leaving just as fast as they could get out; they were perfectly crazy to get out.

SHORTAGE OF ENLISTED MEN IN 1919, DUE TO DISCHARGES.

Mr. BYRNES. If you had 12,000, before you must have had about 3,000?

Captain WILLIAMS. I should not wonder if we had. You have to take into account that the 12,000, or whatever the figure was at that time, does not represent a Navy of the size that we have now. It represented a Navy very much larger. The fact that they were going out at that time was proved by the hearings that lasted six months.

Mr. KELLEY. I understand that they were leaving.

Captain WILLIAMS. Was there any doubt in your mind that they were leaving?

Mr. KELLEY. If they had not been leaving, there would not have been any chance of your getting the increase in pay, because that was the motive.

Captain WILLIAMS. They left for the Shipping Board—the Shipping Board invited them on our own ships.

Mr. BYRNES. You must have had a much larger number of before that time.

Admiral COONTZ. They began to go all the fall and by her efforts we kept enough men aboard the ships on the 5th of F to shove them away from the docks.

Mr. KELLEY. You remember that there was legislation about men so as to facilitate their discharge?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Because they had all been through the everybody said—I guess the naval officers and all, and they wanting to go—if anybody wants to go, let them go. The Shipping Board's opportunities, as somebody said, were made to skilled mechanics. I dare say that Captain Leigh's figures absolutely correct.

Admiral COONTZ. I do not know.

Mr. KELLEY. And these figures you submit are probably wrong.

Colonel ROOSEVELT. I do not believe so. I believe the figures mitted this morning are correct. I believe they were going out all the time, leaving all the time. I believe that 12,000 is correct; I believe the other figure is a mistake.

Mr. KELLEY. If you had had 12,000, you would have had 10 officers and you would not have had any—

Colonel ROOSEVELT (interposing). I was not here at the time.

Admiral COONTZ. I went out to the Pacific on the 1st day of 1919, with the fleet and we took about half with us. We had beg and gotten the men to stay until we got the ships to the Pacific. got them there. We went to the cities and received the wel and all that until the late fall and then the men just went ash the hundreds.

Mr. KELLEY. That is my understanding.

Admiral COONTZ. And in December of that year I do not bel they had half their crews aboard.

Mr. KELLEY. Our memories are in perfect accord.

Admiral COONTZ. I know that we had a special conference in navy to see what we could do to shove those ships away fr docks, because they would be lying there some six months.

Mr. KELLEY. And we went ahead and we promised the boys, ei directly or indirectly, that even though the bill were late in that we would make it retroactive?

Admiral COONTZ. Yes, sir; and that fall and spring they bega come back.

Captain WILLIAMS. Those figures are contained in the l and they are repeated and verified by man after man.

NUMBER OF ENLISTED MEN IN NAVY BY RATINGS IN 1916.

Mr. KELLEY. How many men did you have in these different ings in 1916? Have you that information?

Captain WILLIAMS. No, sir; I have not that data.

Mr. KELLEY. You may furnish that information as of July 1, 1 or some other date in 1916.

Captain WILLIAMS. We will furnish that.

Number of enlisted men by pay grades in service June 30, 1916.

Chief petty officers.....	4, 136
Petty officers, first class.....	6, 483
Petty officers, second class.....	4, 671
Petty officers, third class.....	4, 532
Firemen, first class.....	3, 590
Firemen, second class.....	2, 960
Firemen, third class.....	3, 748
Nonrated men, first class.....	7, 500
Nonrated men, second class.....	9, 471
Nonrated men, third class.....	4, 376
Cabin stewards and cooks.....	416
Wardroom stewards and cooks.....	299
Steerage stewards and cooks.....	72
Warrant officers' stewards and cooks.....	193
Mess attendants, first class.....	816
Mess attendants, second class.....	447
Mess attendants, third class.....	509
Total.....	54, 234

NUMBER OF MEN IN NAVY JULY 30, 1921, BY YEARS OF SERVICE.

Mr. KELLEY. Have you a table showing the number of men in the chief petty officer rating who have served 8, 12, 16 years, etc.?

Captain WILLIAMS. No, sir; I do not think so. I think we have the number of men in the Navy that have served that length of time. This is not what you asked for, and it is not very recent. It shows a total of 119,000 on June 30, 1921.

Mr. KELLEY. You may give that.

Captain WILLIAMS. As of June 30, 1921, the number who had served 28 years and over was 94; 24 years and less than 28 years, 113; 20 years and less than 24 years, 242; 16 years and less than 20 years, 1,481; 12 years and less than 16 years, 3,604; 8 years and less than 12 years, 5,444; 4 years and less than 8 years, 8,826; less than 4 years, 16,552; and with no previous service, 82,349. That is as of July 30, 1921.

Mr. KELLEY. That makes a total of 119,000?

Captain WILLIAMS. Yes, sir. If you want the same information for the petty officers in the service, I can furnish it.

Mr. KELLEY. Will that be much of a job?

Captain WILLIAMS. Yes, sir; quite a job.

Mr. KELLEY. This looks like a pretty top-heavy list to me.

Captain WILLIAMS. Let us determine what you are talking about—whether it is what we have or what we want.

Mr. KELLEY. I am referring to the last list you gave, making up 65,000 men.

REASONS FOR RETAINING CHIEF PETTY OFFICERS IN SERVICE.

Captain WILLIAMS. I do not think so. That is a long story, and you have heard it before. Let us take up the question of the chief petty officers: The chief petty officer has no parallel in any other military service except the Navy. He is the highest leading man that we have, and in many cases he is a very high-grade mechanic. He may be both, and sometimes is. The number of those men depends, first, on the size of the ship and upon the character of the ship upon which we are estimating; it depends, second, upon the number of ships

upon which we are estimating, but aside from and beyond that group of men have qualifications which, perhaps, can not be measured mathematically. If you have a very large number of very young men or inexperienced men or incompletely trained men, you must, necessarily, have more men in these higher ratings. When your number is standardized, when your training is diffused from the bottom down, and when you have had your plan in operation for any length of time, perhaps then these inequalities will smooth themselves out, but under the present circumstances, upon the basis of our experience and according to the best observations we can obtain, we say that this type of ships requires so many petty officers—that is, two of each type, three of that type to run the engines, etc., and by accumulating them we get the number. Now, it takes time to make them; they can not be easily replaced when the time comes, and they have a value greater than their mathematical value.

Mr. KELLEY. I agree with you that if we have a small Navy we want to man it with good men, eliminating the boys as far as possible, in order to bring about that condition. There is no doubt between us about that; but I say that possibly, even so, these percentages run pretty high in the upper grades.

Captain WILLIAMS. No, sir. I am very sure that Mr. Perkins find in the hearings for years past statements showing that these percentages have been carried in all the navies of the world. I am quite sure that that information has been given for Great Britain, France, Japan, and for all the foreign services. It is customary to compare them with the men in similar ratings in some other military branch, but there are none similar. They are not at all like any I know of outside of the naval service.

Mr. KELLEY. Mr. Reed, you heard those figures that the committee read off as the number desired on the basis of 65,000 men. From my recollection, would they hold pretty well proportionately with the number that you figured for the various grades when you made your pay table last year?

Mr. REED. Do you mean for the appropriation for 1922?

Mr. KELLEY. Yes.

Mr. REED. This distribution is higher in the upper grades.

NUMBER OF MEN ENTITLED TO RESERVE-LAW PRIVILEGES.

Mr. KELLEY. That is the way it struck me. It would help if the committee would furnish us the number of men in each of the four highest ratings—that is, above the rating of firemen—with the number of those men. The statement should show the number that have served 4 years, the number that have served 8 years, the number that have served 12 years, and the number that have served 16 years, etc. We would like to have that statement covering the length of service of the four highest grades.

Captain WILLIAMS. You want to know what will be our estimate of their length of service?

Mr. KELLEY. Yes.

Captain WILLIAMS. For instance, if you were estimating chief petty officers, you would want to have our best estimate of their length of service?

Mr. KELLEY. Yes. It will have a bearing on the question of whether they will be likely to go into the reserves.

Captain WILLIAMS. Yes, sir. We have 8,400 permanent and 3,112 temporary.

Mr. KELLEY. After a man has served 16 years, he then goes into the reserves at what pay?

Captain WILLIAMS. At one-third pay.

Mr. KELLEY. There is quite an attraction there. He gets an annuity of one-third of his pay?

Captain WILLIAMS. We have been discouraging that as far as we could.

Mr. KELLEY. If you had an excess at all, the men who had served longer than 16 years might be glad to go out, if you would allow them and did not need them.

Captain WILLIAMS. Our reserve legislation is now pending.

Mr. BYRNES. You say you have been discouraging them from going into the reserves. Why do you do that?

Captain WILLIAMS. For many reasons. We want these men, in the first place, and want to keep them. In the second place, the reserve legislation is pending, and we do not want to load up that reserve list with any more of these people than we can help, or until the reserve business is settled. When you come to talk about the reserves you have a lot of new elements to consider.

Mr. KELLEY. If there were a certain number going out, who had served 16 years, they would have certain rights of pay and other privileges, and, of course, nobody wants to deprive them of any of those rights. We want to know about how many would be entitled to them.

Captain WILLIAMS. I do not think you will find the number very large.

Colonel ROOSEVELT. What you want is the number who would be entitled to certain privileges under the reserve law at this time in the Navy?

Mr. KELLEY. Yes; in these higher grades. It would not appeal to anybody else.

Colonel ROOSEVELT. Have you that information?

Captain WILLIAMS. I will supply that for the committee.

REDUCTION OF NAVY BY ALLOWING NORMAL DECREASE.

Mr. KELLEY. Captain, you said a while ago that there were two ways of effecting this reduction, in case Congress decided to make it. What is the other way?

Captain WILLIAMS. I think, taking all things into consideration, that I would much prefer the method of which we have been speaking. The other method is one that is not new to us. It consists in allowing the normal decrease to take place, and, in fact, encouraging it, from the number we have now to the number it will reach on July 1, 1923, thereby establishing an average of 65,000 men. It, perhaps, would bring about a delay in recruiting and, perhaps, a delay in the matter of training. By training under those circumstances, I mean trade schools also. We might be able to delay recruiting under those circumstances until November or December of this year, and we might be able to get along without bringing in new men and without

training. Now we have got 95,000, roughly speaking, and on 1923, we would have to cut down away below 65,000 in order to an average of 65,000 for the year. It is not an easy thing to a number of men fit the appropriation. The variables immense.

The appropriation covers the pay of different grades; it covers the pay of a number of men which, as I have explained, is not accurately available. We might be 1,000 men out in our country consequently, in handling that many we have got to allow a factor of safety. Our experience in 1920 and 1921, or in the fiscal years, after the demobilization, showed that we came in first, to an average of 120,000 men, and next to maintaining an average of 112,000 men, I think it was, and now we are under control to maintain an average of about 90,000 plus. There is a fluctuation due to discharges. If the appropriation is exceeded, we discharge men, but if the appropriation is in excess, let us recruit men. It is extremely bad from one point of view. We have certain moments now, or those figures on first enlistments that I read to you a few moments ago. In my opinion, after considering all of the circumstances connected with the fluctuations in personnel, that is one of the results. To give the reasons would lead us far afield, but the fluctuations in personnel are, perhaps, as bad if not worse than cuts.

Mr. KELLEY. Have you canvassed the situation with the Secretary of the Navy to determine which of the two methods should be used?

Captain WILLIAMS. No, sir; I have not.

TRANSPORTATION AND RECRUITING.

Mr. KELLEY. Of course, you will have to determine that before we take up the question of transportation and recruiting.

Captain WILLIAMS. You have got to have a variable there.

Mr. KELLEY. But you would have to determine that.

Captain WILLIAMS. I have been watching the appropriation, transportation, and recruiting for the past four years. It is the twin of all this business. You may not believe me, but I know of no appropriation where the estimates have come so close to the figures. I know of none that I have had anything to do with came closer.

Mr. KELLEY. I think you started out with about \$12,000,000.

Captain WILLIAMS. And it will amount to that before it goes through with the deficiencies.

VARIATION IN PERSONNEL TO BE CAUSED BY REDUCTION.

Colonel ROOSEVELT. With your permission, I want to put in a comment in explanation of a phase of the matter on which Captain Williams has not yet spoken, and which is one of the major factors in this situation: Should plan 2 be adopted, you would cut down from 50,000 men at sea to about 30,000 men at sea at the half of the year.

Mr. KELLEY. That would depend on where you started.

Colonel ROOSEVELT. You could not do otherwise.

KELLEY. Suppose you discharged a little bit between now and of July, and cut the number down to 70,000 or 75,000. It depend upon what you had between now and the 1st of July.

Colonel ROOSEVELT. I am cutting down to 65,000, which would be the same thing; but the difference between plan 1 and plan 2, that under the first plan you man your Navy with a constant year along, and you know what you have got, whereas under the second plan you have slightly more men than Congress provided; slightly more than you considered was proper for the Navy, for the first six months and less during the last six months, so you must cut down to a margin of great unsafety during the six months.

FRENCH. Would not another difficulty arise under plan 2? that plan you would lose on ships that might be in remote—at the Philippines or in the Mediterranean—on the question of charges, because the question of replacements would be a question of reserves, and replacements could not be made on those ships they might be made on ships close in.

Colonel ROOSEVELT. Unquestionably. If it were a business, the result would be fixed; but we have not our constants. We have shifting year after year, and have not got down to a constant and the result is that it is up and down and we are not able to rely on it.

KELLEY. It might not be quite exact following either plan.

JUSTIFICATION FOR RUNNING TRAINING STATIONS.

BYRNES. Captain, how do you get that 49 per cent of first enlistments? Did I understand you to say there were 49 per cent of first enlistments during the past year?

Captain WILLIAMS. No, sir.

BYRNES. What is that figure?

Captain WILLIAMS. This is a figure which deals with the state of the Navy as it is. During the fiscal year 1921 there were in the Navy 54,517 men on their first enlistments—that is to say, 49 per cent of the average number of men in 1921 were serving in their first enlistments.

BYRNES. Then, why were you arguing that it would necessitate the running of training stations or operating the training stations for first enlistments?

Captain WILLIAMS. That was not the argument.

BYRNES. Then, I misunderstood you.

Captain WILLIAMS. May I go over that again?

BYRNES. If that was not the argument, I misunderstood you.

Captain WILLIAMS. The argument for running the training stations is the number of discharges.

BYRNES. What I am driving at is this: If you have men serving in their first enlistments, and they reenlist, it will not be necessary to run training stations for them.

Captain WILLIAMS. You have got the wrong idea.

BYRNES. What argument were you making to justify the operation of the training stations?

Captain WILLIAMS. The number of men who will actually go this year, whether serving their first enlistment, second enlistment, third enlistment, or any other enlistment. It is the number of who will go out.

Mr. BYRNES. When the term of a man serving his first enlistment expires and he reenlists, you do not have to send him to a training station?

Captain WILLIAMS. No, sir.

Mr. BYRNES. Therefore, when you say it depends upon the number of men going out, I do not see that the necessity for the training station necessarily follows. It does not necessarily follow that you would send those men to training stations.

Captain WILLIAMS. We have allowed, upon the basis of our experience in the past, for 50 per cent of reenlistments, leaving 50 per cent of the vacancies to look out for. If you have 40,000 vacancies and 20,000 reenlistments, you have 20,000 more vacancies to fill.

Mr. BYRNES. It is based upon your starting the next fiscal year with 65,000 men?

Captain WILLIAMS. It is based upon our experience in the past.

Mr. KELLEY. But it disregards the reenlistment of other personnel except those who immediately reenlist. There are boys all over the country who have had service in the Navy and who will be glad to reenlist. You can pick them out anywhere, and they will not require training. They are now hanging around waiting to see what will do about the pay. They do not want to enlist for four years at the old pay.

Captain WILLIAMS. There is a great deal in what you say, but according to my best judgment, I do not believe that that factor will ever counterbalance that estimate of six or seven thousand men a month for training.

SATURDAY, MARCH 11, 1922.

INCREASE OF THE NAVY.

STATEMENTS OF REAR ADMIRAL DAVID W. TAYLOR, CHIEF OF BUREAU OF CONSTRUCTION AND REPAIR; REAR ADMIRAL CHARLES B. McVAY, JR., CHIEF BUREAU OF ORDNANCE; REAR ADMIRAL JOHN K. ROBINSON, CHIEF BUREAU OF ENGINEERING.

STATUS OF CONSTRUCTION OF VESSELS TO BE DISCONTINUED UNDER TREATY.

Mr. KELLEY. We have with us this morning Admiral Taylor, Chief of the Bureau of Construction and Repair, and Admiral McVay, Chief of the Bureau of Ordnance, and their staffs. We will hear Admiral Taylor first.

Admiral, we want to make some inquiries this morning about the state of construction on vessels that are to be discontinued under the treaty, and also on those that are to be completed. How many ships have you now on the ways or now under construction?

Admiral TAYLOR. We have now under construction 15.

Mr. KELLEY. Does that number include cruisers?

Admiral TAYLOR. Yes, sir; it includes the capital ships. It includes six battle cruisers, six large battleships, and three smaller battleships.

Mr. KELLEY. Of the battleships that are now building, how many will be finished under the treaty?

Admiral TAYLOR. Two of the *Maryland* class, namely, the *Colorado* and either the *West Virginia* or the *Washington*.

Mr. KELLEY. What is the percentage of completion of the *Colorado*?

Admiral TAYLOR. The *Colorado* is approximately 90 per cent complete in the hull and somewhat less in machinery.

Mr. KELLEY. The *Colorado* is expected to be finished within the next fiscal year, or during the present fiscal year?

Admiral TAYLOR. Within the next fiscal year, depending upon money.

KELLEY. How much more money will it take to finish the *Colorado*? I am speaking now of your part of it.

Admiral TAYLOR. Yes, sir; I understand that. After the 1st of July next we estimate that \$2,000,000 will be required to finish the *Colorado*.

KELLEY. Admiral McVay, how much will it take for your part to finish it after the 1st of July?

Admiral McVAY. About \$1,500,000.

Mr. KELLEY. Is there anybody that can speak for engineering?

Admiral TAYLOR. The \$2,000,000 I gave includes construction and machinery.

Admiral McVAY. In that connection, I take it that you mean how much more money will be needed?

KELLEY. I want to know how much you will have to spend on after the 1st of July. The amount you gave is right?

Admiral McVAY. Yes, sir.

Mr. KELLEY. That makes \$3,500,000 as the amount necessary to finish the *Colorado*. Now, either the *Washington* or the *West Virginia* will be finished?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. They are not far apart, I suppose?

Admiral TAYLOR. We have a board sitting on that. Whichever is completed, there will be required about \$3,750,000 after the 1st of July for engineering and construction.

KELLEY. And how much will be required for ordnance?

Admiral McVAY. \$2,500,000.

Mr. KELLEY. That means \$6,250,000 for either the *West Virginia* or the *Washington*. About what is the percentage of completion of either or both of those ships?

Admiral TAYLOR. Roughly, in the neighborhood of 75 per cent.

KELLEY. Would it be your idea to wholly complete either the *Washington* or the *West Virginia* next year?

Admiral TAYLOR. It would be very desirable, because this slow method is very expensive. We have got to the condition where the shipyards have virtually nothing except Government work, and the price of material and labor is apparently not going down, and the overhead is going on all the time.

KELLEY. It could be completed within the year without crowding the work very much?

Captain WILLIAMS. The number of men who will actually this year, whether serving their first enlistment, second or third enlistment, or any other enlistment. It is the number of who will go out.

Mr. BYRNES. When the term of a man serving his first enlistment expires and he reenlists, you do not have to send him to a training station?

Captain WILLIAMS. No, sir.

Mr. BYRNES. Therefore, when you say it depends upon the number of men going out, I do not see that the necessity for the training station necessarily follows. It does not necessarily follow that we would send those men to training stations.

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CHARLES B. McVAY, JR., CHIEF BUREAU OF ORDNANCE;
REAR ADMIRAL JOHN K. ROBINSON, CHIEF BUREAU OF ENGINEERING.

STATUS OF CONSTRUCTION OF VESSELS TO BE DISCONTINUED UNDER THE LLOYD LAMAR TREATY.

Mr. KELLEY. We have with us this morning Admiral Taylor, Chief of the Bureau of Construction and Repair, Mr. McVay, Chief of the Bureau of Ordnance, and Mr. Robinson. We will hear Admiral Taylor first.

Admiral, we want to make some inquiries this morning about the status of construction on vessels that are to be discontinued under the Lloyd Lamar treaty, and also on those that are to be completed. How many ships have you now on the ways or now under construction?

Admiral TAYLOR. We have now under construction 12.

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Mr. KELLEY. Would it be your idea to wholly complete either the *Washington* or the *West Virginia* next year?

Admiral TAYLOR. It would be very desirable, because this slow progress is very expensive. We have got to the condition where the private shipyards have virtually nothing except Government work, and the price of material and labor is apparently not going down much, and the overhead is going on all the time.

Mr. KELLEY. It could be completed within the year without crowding the work very much?

Admiral TAYLOR. Very readily; yes, sir. Unless we do them, we will have to slow down the work very much.

CONVERSION OF VESSELS TO AIRCRAFT CARRIERS.

Mr. KELLEY. Vessels of the battle cruiser type are all to be continued unless there is some legislative provision to convert into aircraft carriers?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Have you developed the situation far enough so you can tell us this morning about the situation in reference to conversion of two of them—that is, what it would cost and how long it would take?

Admiral TAYLOR. Mechanically it is quite possible to convert them. The situation is that those at present most advanced have gone up on the ways up to the water line, and what we would do in converting them would be to utilize everything below the water line. What we would do would be to throw away everything above the water line, including the turrets for the guns and the structure of the building a new structure for the aircraft carrier.

Mr. KELLEY. So that, so far as the work of construction material that has gone into the ships are concerned, there would be any great loss involved in the conversion of them?

Admiral TAYLOR. Comparatively little. We have acted on the ships in the neighborhood of \$6,000,000 each, in round numbers, and if it is necessary to scrap them, we figure that we will need \$5,500,000 more for each, or \$6,000,000 for each, making an expenditure in the appropriation for construction and on those ships of about \$11,500,000. As to the cost in the new expenditures for converting them into aircraft carriers, that can be done within the limit of the cost of the battle cruisers or \$23,000,000. Therefore, converting them into aircraft carriers would require approximately \$11,500,000 of new money or \$5,500,000 has been spent and over what would be spent if they were scrapped.

Mr. KELLEY. What would have to be spent in scrapping them would come about through settlements and cancellations, and the cost of the material that would have to be discarded?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Leaving out of the discussion entirely what it would take to settle up, in order that it might be handled as a separate question, how much will it take to finish the two battle cruisers advanced, or the two that you have in mind to finish as aircraft carriers?

Admiral TAYLOR. It would be in the neighborhood of \$17,000,000 apiece. That is additional to what has already been spent. The thing, of course, will depend upon the date upon which they are finished.

Mr. KELLEY. That \$17,000,000 is the difference between the cost of the battle cruisers and what has been spent on them?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Now, as to the ordinance end of it. Does your estimate include engineering also?

Admiral TAYLOR. Yes, sir; I have those statements together.

al McVAY. Eleven million dollars would be required for

ELLEY. Apiece?

al McVAY. No, sir; for the two. \$6,400,000 would be for armor and armament and \$4,600,000 for the item of

ELLEY. Making \$11,000,000 altogether.

al McVAY. Yes, sir.

ELLEY. Suppose you leave out for the moment the question of

al McVAY. \$6,400,000.

ELLEY. For the two?

al McVAY. Yes, sir.

ELLEY. Then, that makes for the actual completion of the

al TAYLOR. I was going to say that that figure that I gave

ELLEY. On each one?

al TAYLOR. On the two. We are in a rather uncertain state,

ELLEY. What part of this would you expect to spend during

al TAYLOR. If the work were carried on at a normal rate we

ELLEY. Does the ordnance work need to go forward at the

al McVAY. It does; yes, sir; but, assuming that the ships

ELLEY. Seven million dollars each would be expended for

al McVAY. Well, we should have about \$7,000,000. That

ELLEY. You gave the figure of \$6,400,000.

al McVAY. It would be about \$4,000,000 for armor and

ELLEY. Would you have to have \$2,000,000 for each ship for

al McVAY. Yes, sir.

ELLEY. Of course, it all depends on when these are author-

al McVAY. It does; yes, sir.

ELLEY. In other words, you can not do anything until Con-

al McVAY. No, sir; and, not only that, but so long as the

pension charges. The stoppage of work saves about \$80,000 per but the suspension charges, or holding it in readiness to continued, will run about \$10,000 per day.

Mr. BYRNES. How do you estimate that?

Admiral McVAY. When it seemed likely that the scrap would go through, I invited the larger contractors to a conference and asked them to please outline their charges. There is no charge settled, but they have outlined the charges, and from that I have figured what it would cost.

Mr. BYRNES. \$10,000 per day?

Admiral McVAY. Yes, sir.

Mr. KELLEY. These figures make up \$3,500,000 for the Colorado and \$6,250,000 for the other battleship, either the West Virginia, and \$18,000,000 for the two airplane carriers next year, in case Congress makes the authorization and ships are continued?

SCOUT CRUISERS.

STATUS OF CONSTRUCTION AND COST TO COMPLETE.

Admiral TAYLOR. And there are 10 scout cruisers.

Mr. KELLEY. Give us the figure for the completion of the scout cruisers, and give them by name. Perhaps you could put it at this point.

Admiral TAYLOR. They vary in state of completion. The latest is 95 per cent completed. This table shows all the scout construction, including those to be scrapped and those to be scrapped.

Mr. KELLEY. I think it would be a good thing to put this into the hearing.

Admiral TAYLOR. I can put the whole thing in covering building.

(The table referred to is as follows:)

Vessels under construction, United States Navy, February 23, 1922.

Type No.	Name.	Contractor.
BATTLESHIPS (BB).		
45	Colorado	New York Shipbuilding Corporation
47	Washington	do
48	West Virginia	Newport News Shipbuilding & Dry Dock Co.
49	South Dakota	New York Navy Yard
50	Indiana	do
51	Montana	Mare Island Navy Yard
52	North Carolina	Norfolk Navy Yard
53	Iowa	Newport News Shipbuilding & Dry Dock Co.
54	Massachusetts	Bethlehem Shipbuilding Corporation (Paw River).
BATTLE CRUISERS (BC).		
1	Lexington	Bethlehem Shipbuilding Corporation (Paw River).
2	Constellation	Newport News Shipbuilding & Dry Dock Co.
3	Saratoga	New York Shipbuilding Corporation
4	Ranger	Newport News Shipbuilding & Dry Dock Co.
5	Constitution	Philadelphia Navy Yard
6	United States	do

under construction, United States Navy, February 28, 1922—Continued.

Name.	Contractor.	Per cent of com- pletion Mar. 1, 1922.
T CRUISERS (LIGHT CRUISERS CL).		
ha.....	Todd Dry Dock and Construction Corpora- tion.....	94.7
aukee.....	do.....	87
innati.....	do.....	81.8
igh.....	Bethlehem Shipbuilding Corporation (Fore River).....	46.6
oit.....	do.....	68.1
mond.....	Wm. Cramp & Sons Co.....	80
ord.....	do.....	77
ton.....	do.....	46
lehead.....	do.....	33
phis.....	do.....	26
DESTROYER AUXILIARIES.		
ir ship No. 1, Medusa (AR1).....	Puget Sound Navy Yard.....	69.8
royer tender No. 3, Dobbin (AD3).....	Philadelphia Navy Yard.....	67.8
royer tender No. 4, Whitney D4).....	Boston Navy Yard.....	42.1
arine tender No. 3, Holland S3).....	Puget Sound Navy Yard.....	5.5
PATROL VESSELS.		
boat No. 22, Tulsa (PG22).....	Charleston Navy Yard.....	60
SUBMARINES.		
.....	Portsmouth (N. H.) Navy Yard.....	94.8
.....	do.....	92.8
.....	do.....	91.6
.....	do.....	89.5
.....	Electric Boat Co. (Quincy).....	97
.....	do.....	96.5
.....	do.....	98.5
.....	do.....	94.9
.....	do.....	95.8
.....	do.....	94
.....	do.....	93
.....	do.....	93.5
.....	do.....	91.9
.....	do.....	90
.....	do.....	90.9
.....	do.....	89
.....	Electric Boat Co. (San Francisco).....	99
.....	do.....	97.7
.....	do.....	96.6
.....	do.....	99.2
.....	do.....	95.6
.....	do.....	93.4
.....	do.....	92.2
.....	do.....	91.5
.....	do.....	85.9
.....	do.....	83
.....	do.....	79.8
.....	do.....	82.9
.....	Electric Boat Co. (Quincy).....	70
.....	do.....	71.7
.....	do.....	68.4
.....	do.....	69.1
.....	do.....	67.2
.....	do.....	66.9
.....	Lake Torpedo Boat Co. (Bridgeport).....	98.3
.....	do.....	99.3
.....	do.....	97.3
.....	do.....	94.5
FLEET SUBMARINES.		
.....	Portsmouth (N. H.) Navy Yard.....	15.8
.....	do.....	10
.....	do.....	9

Mr. KELLEY. What is the total for all the ordnance on all of ships to finish them?

Admiral McVAY. \$6,200,000.

Mr. KELLEY. Then you intend to finish your part of entirely next year?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Would it be necessary to do that?

Admiral McVAY. We always have to be a little ahead of bureaus, because as the work goes along under Const: contractors call for certain material for installation, and if it is not ready there is a claim made; so we always try to work a little ahead of the other bureaus.

Mr. KELLEY. How are you going to handle the material on hand from the scrapping of ships if you use it on th

Admiral TAYLOR. As regards scouts, there will be com little of the material from scrapping which can be used, be vessels scrapped are of different types. For instance, we use the plates, because each plate and shape is ordered for a ticular part of the ship—that is, the plates and shapes to big ships—and will not fit elsewhere.

Mr. KELLEY. That would not be so true of the armor.

Admiral McVAY. On the scouts, of course, there is no armor it is not true of the armament; no, sir.

Mr. KELLEY. If there were guns intended for some other could be put on these ships without loss.

Admiral McVAY. Well, we have the guns; we have them now.

Mr. BYRNES. You already have these guns?

Admiral McVAY. Yes, sir.

Mr. KELLEY. For what purpose will you mostly use this?

Admiral McVAY. It is for these new mounts and the fire c

LIMIT OF COST.

Mr. KELLEY. Is there a limit of cost as to your part of th

Admiral McVAY. Only that covered by the hearings committee, in which we have specified the amount of year to year to continue the work.

Mr. KELLEY. I say, is there any limit of cost fixed by law?

Admiral McVAY. No, sir.

Mr. KELLEY. You can spend as much for ordnance as y Congress to appropriate money for?

Admiral McVAY. Yes; except that we always specify t

Mr. KELLEY. But Admiral Taylor's bureau is limit

Admiral McVAY. Yes, sir.

Mr. KELLEY. So you can go ahead and change th change these plans for ordnance all you please, irr ve it will cost?

Admiral McVAY. Yes, sir; but, of course, we ne explaining to the committees what we are doing.

GUNS, MOUNTS, AND FIRE CONTROL.

Mr. KELLEY. I understood you to say that the \$6,200,0 asking for next year is for the new features on the ships.

Admiral McVAY. And completing the present features.

Mr. KELLEY. You said you had the guns finished, and what else is there but the mounts?

Admiral McVAY. Well, there are the mounts—

Mr. KELLEY (interposing). And the mounts cost \$2,300,000?

Admiral McVAY. That is for these special mounts.

Mr. KELLEY. How much for the other mounts?

Admiral McVAY. And the other mounts cost \$152,000 apiece.

Mr. KELLEY. How many of them are there?

Admiral McVAY. There are 10 ships, so that it will be something like \$1,520,000. The fire-control costs \$292,000 per ship.

Mr. KELLEY. And there are 10 of those?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Will not all of that be done before the 1st of July or any of your expenditure already been made?

Admiral McVAY. Yes, sir; there has been a proportion of it.

Mr. KELLEY. There is no question about the guns, and you will have 53-caliber guns to spare?

Admiral McVAY. No; they are pretty nearly finished, but I can tell you the number finished.

Mr. KELLEY. You must have had a vast number of the 6-inch 53-caliber guns that you were making for your battleships, so that you have lots of guns, of course?

Admiral McVAY. No.

Mr. KELLEY. And have you not the gun mounts, too?

Admiral McVAY. No, sir.

Mr. KELLEY. How many 6-inch guns will there be on the battleships?

Admiral McVAY. There are 16 on each of four ships. I will have entered in the record the number finished, because from this record appears that for all the ships the guns are under manufacture.

Mr. KELLEY. You were building a large number of battleships and the cruisers?

Admiral McVAY. Yes, sir.

Mr. KELLEY. On some of them there were sixteen 6-inch 53-caliber guns?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And the 6-inch 52-caliber gun is the gun you are going to put on these cruisers?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Have you not plenty of guns to put on the cruisers that are finished, including the mounts?

Admiral McVAY. No.

Mr. KELLEY. What has become of all the guns you were making for the battleships and which you will not need to mount now?

Admiral McVAY. I can not give you, offhand, the number committed, but I can get it and enter it in the record.

Mr. KELLEY. You ought to know or somebody around your place ought to know whether or not you have not finished large numbers of 6-inch 53-caliber guns for some of the battleships.

Admiral McVAY. No; we have not. I can tell you that they are marked under manufacture for all of these ships. I know that some of the 6-inch guns are completed, but how many I can not say.

Mr. KELLEY. How about the mounts? This is so un-
that we can not do anything, and you will have to pre-
ships that are canceled, with the armament that is under pr-
manufacture or whether it is manufactured or not, and give
full condition of the armament on every ship that is to be scr-

Admiral McVAY. Here it is; I am reading it off to you, but
under manufacture right now.

Mr. KELLEY. You say there are a few here and a few there.
we can not get any head or tail out of that.

Admiral McVAY. I have a statement here showing that the
are under manufacture.

Mr. KELLEY. How far are they manufactured?

Admiral McVAY. That is what I can not tell.

Mr. KELLEY. Then it is of no use to us. We want to know in
dollars and cents how much it will take to finish this job, and we
not know unless we know exactly how far advanced each
these pieces of armament is on all the ships to be scrapped
to be finished.

Mr. OLIVER. Have you guns of this type on any of the old ships?

Admiral McVAY. No, sir.

Mr. OLIVER. You never had that type of gun?

Admiral McVAY. No, sir.

Mr. KELLEY. If you have guns intended to be put on the
ships that are finished of this very same type, of course, there is
use in finishing these.

Admiral McVAY. That is the reason I have to take up the
because when we make guns we do not make guns for a single
ship, but we make guns for the total number of ships, and as
come along we put the guns on them.

Mr. KELLEY. The 6-inch 53 caliber gun is the 6-inch 53 cal-
gun, mount and all?

Admiral McVAY. Yes, sir; we have to make so many, and as
ships become ready for them they are sent there.

Mr. KELLEY. You do not know whether you will need \$65
or not?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Because you do not know in what condition
guns are or your mounts are?

Admiral McVAY. Yes, sir; that data is figured out. I can
out the details, without going into the details for the
but I can get that and put it in. I simply do not happen
here.

Mr. BYRNES. You mean you have figured it out by details but
have not the details here with you?

Admiral McVAY. That is it; yes, sir. You understand, do
not, that we were carrying on these guns under manufacture for
the ships?

Mr. KELLEY. I do.

Admiral McVAY. And as they were ready they were sent
ships that needed them?

Mr. KELLEY. I understand that very well.

Admiral McVAY. And this \$6,200,000 is needed for the
of all the guns, 6-inch guns and mounts, but only those

that are not to be scrapped, and I will have to get the details for that.

Mr. KELLEY. You said the mounts would cost \$2,600,000, but you did not know how much you had already expended on the mounts.

Admiral McVAY. Not in detail, no, sir; but I can get it without any difficulty.

Mr. KELLEY. The figures you have given here, you say, will be the entire cost of the guns and the mounts as well as the fire control, so it would look as though you had not spent anything on guns, mounts, or fire control up to this time, which is not the fact, of course.

Admiral McVAY. No.

Mr. KELLEY. The \$6,200,000 is pretty nearly the total amount you need for those three purposes, according to the figures you gave?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You do not know, of that \$6,200,000, how much you have already spent, so you see we are not any nearer the goal than we were when we started.

Admiral McVAY. Well, I will put that in.

Mr. KELLEY. Obviously, the \$6,200,000 you said you would need after the 1st of July is not a correct figure.

Admiral McVAY. Yes, it is; but the only thing is that I am not able at the present time to put the details in.

Mr. KELLEY. I wish you would prepare a list, properly classified, showing every gun and mount under manufacture, on hand and not yet installed, including guns and mounts on vessels to be scrapped.

Admiral McVAY. Yes, sir. I will furnish this information to the committee.

USE OF MATERIALS ON HAND.

Mr. KELLEY. I understood you to say, Admiral Taylor, that as far as engineering and construction are concerned there is very little material on hand, which was purchased for the ships to be scrapped, that can be used on these ships.

Admiral TAYLOR. Comparatively little on the scouts. We would be able to use such a thing as a ventilating fan, for instance, a small-sized ventilating fan, but the larger ships as a rule have the larger fans for the system. We could use a certain amount of sheet metal which is ordered for making pipes and things of that kind, but that is not a very large factor. We would expect to use as much of that as possible, but it would not be a very large factor. You must also remember that we have on hand for these scouts the major portion of the materials. I think as regards machinery comparatively little could be used. The pumps, for instance, and things of that kind, could not be adapted to a different engine room, because they are specially designed for the purpose.

USE OF AMMUNITION.

Mr. KELLEY. Admiral McVay, that would not be true of your part of the ship at all? The ammunition for the 6-inch 53 caliber guns that you have for these ships could be used on the other ships just as well?

Admiral McVAY. We have that; yes, sir.

Mr. KELLEY. So you would not need to include anything for that?
Admiral McVAY. We have not all the 6-inch .53-caliber ammunition.

Mr. KELLEY. Have you not made any?

Admiral McVAY. No, sir; not all.

Mr. KELLEY. I wish you would prepare a statement and send it to us, showing exactly the state of your manufacture of ammunition.

Admiral McVAY. Yes, sir.

Mr. KELLEY. For all the ships that are under construction, will they are to be scrapped or not.

Admiral McVAY. I have that here just for the capital ships, but I do not have it for the others.

Mr. KELLEY. You have a lot of 6-inch .53-caliber guns on your capital ships. Have you not made any ammunition for them?

Admiral McVAY. No, sir; there is none of it ordered.

Mr. KELLEY. That is rather unusual, is it not?

Admiral McVAY. It is due to the design of the projectile.

Mr. KELLEY. What ammunition have you bought for those ships?

Admiral McVAY. We have the major caliber and we have the 5-inch ammunition. All of this is for the battle cruisers. We have the caliber, and that is all.

Mr. KELLEY. What 5-inch guns are you talking about?

Admiral McVAY. Antiaircraft guns.

Mr. KELLEY. Do you have ammunition for them?

Admiral McVAY. No, sir.

Mr. KELLEY. What of the smaller caliber ammunition have you got?

Admiral McVAY. We have not ordered any of it.

Mr. KELLEY. You have the 5-inch and 6-inch, have you not?

Admiral McVAY. No, sir; not for these ships.

Mr. KELLEY. Have you for any ships?

Admiral McVAY. We made a contract for 200 experimental shells some time ago to test them on the range.

Mr. KELLEY. What have you expended the \$51,000,000 for this ammunition program?

Admiral McVAY. It is for the 6-inch projectiles chiefly for powder.

Mr. KELLEY. How much is completed?

Admiral McVAY. We have all of it for the *Washington*, all for the *West Virginia*, all for the *South Dakota*, all for the *Indiana*, all for the *Montana*; for the *North Carolina* we have only got a little because they were under order at the South Charleston the *Tow* we have 900, and for the *Massachusetts* we have half of this, and the other half is under contract.

Mr. KELLEY. How much does that run into money? I finished your statement?

Admiral McVAY. No, sir. For the *Lexington*, we have 1,000; for the *Constitution* we have 1,800, or the full amount; for the *Albatross* we have 1,800, or the full amount; for the *Ranger*, we have 1,800, or the full amount; for the *Constitution* we have 1,800, or the full amount; for the *United States* we have 1,800 on hand.

Mr. KELLEY. I want to know in dollars and cents where the \$51,000,000 goes.

Admiral McVAY. The 16-inch ammunition comes to about \$24,-500,000.

Mr. KELLEY. That you have on hand?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Where is the rest of the \$51,000,000?

Admiral McVAY. I can put that in the record.

Mr. KELLEY. Please send up a statement, as soon as you can, showing exactly what you have done with the \$168,000,000 that you spent for armor and armament, and the \$51,000,000 that you spent for ammunition, showing the ships on which it has gone, the guns, or types of guns, and the kinds of ammunition.

Admiral McVAY. I will furnish that.

3-INCH AND 5-INCH GUNS.

Mr. KELLEY. When did you change these guns from 3-inch guns to 5-inch guns?

Admiral McVAY. That has been planned for new construction battleships and airplane carrier.

Mr. KELLEY. I notice that the ship's data book, dated July 1, puts them down as 3-inch guns. I am referring to these antiaircraft guns.

Admiral McVAY. The department directed batteries of 5-inch guns placed on late battleships.

Mr. KELLEY. When was that done?

Admiral McVAY. About 10 months ago.

Mr. KELLEY. It did not get into this book.

Admiral McVAY. No, sir; it was since that book.

Mr. KELLEY. This book was printed the 1st of July?

Admiral McVAY. That has been nine months now. I will give you the date of that direction.

Mr. KELLEY. Had you made any 3-inch guns?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Are you throwing them aside and making 5-inch guns?

Admiral McVAY. No, sir. Do you mean had we made the 3-inch guns?

Mr. KELLEY. Yes.

Admiral McVAY. No, sir; we had 3-inch guns left over from the war.

Mr. KELLEY. You decided to leave them and make 5-inch guns?

Admiral McVAY. Yes, sir; after the test of the 3-inch guns. We went into the question of antiaircraft defense much more extensively, and, as a matter of fact, we are still carrying out tests at the proving ground.

Mr. KELLEY. These ships were designed before the war, and out of your experience you figure that the 5-inch antiaircraft gun is much more valuable?

Admiral McVAY. Yes, sir.

Mr. KELLEY. How much more do they cost than those you have on hand, or the 3-inch guns?

Admiral McVAY. The 5-inch gun costs \$12,000, and, I think, the 3-inch gun costs about \$4,000, as I remember it.

Mr. KELLEY. That much more?

Admiral McVAY. No, sir; the 3-inch gun will cost \$4,000 compared with \$12,000 for the 12-inch gun.

Mr. KELLEY. Are the mounts the same?

Admiral McVAY. No, sir; the mounts are more expensive.

Mr. KELLEY. What would be the difference in the mounts?

Admiral McVAY. The 5-inch mount costs \$18,500.

Mr. KELLEY. What does the 3-inch mount cost?

Admiral McVAY. About \$7,800.

Mr. KELLEY. Do you have the mounts for the 3-inch guns?

Admiral McVAY. Yes, sir; we have the mounts for them. We have a sufficient number to put the 3-inch guns on the ships to which they are assigned until we can get the 5-inch guns for them; but they are satisfactory.

Mr. KELLEY. How many 3-inch guns have you on hand?

Admiral McVAY. A large number.

Mr. KELLEY. And how many mounts?

Admiral McVAY. We have a large number of them on hand.

Mr. KELLEY. Do you have any 5-inch guns mounted for the gunboats?

Admiral McVAY. No, sir.

Mr. KELLEY. You know just what I want?

Admiral McVAY. Yes, sir.

Mr. KELLEY. I want a history of your ammunition situation and a history of your gun situation.

Admiral McVAY. I will furnish that.

AUXILIARIES.

Mr. KELLEY. You have four auxiliaries here. Are all of them to be finished?

Admiral TAYLOR. Yes, sir; they are not barred by the construction law.

Mr. KELLEY. Will any of them be finished before the 1st of July?

Admiral TAYLOR. No, sir.

Mr. KELLEY. How much will you require for them after the 1st of July?

Admiral TAYLOR. To finish them after the 1st of July, in the gunboat, about \$9,000,000 will be required. Normally they would be finished next year. I should say that the *Holland* is suspended on the *Holland*, at Puget Sound, because of lack of room, but it is being carried along on the *Medusa*.

Mr. KELLEY. How much of the \$9,000,000 will be required after the 1st of July?

Admiral TAYLOR. If they were carried on at the normal rate they would be required about \$7,000,000.

Mr. KELLEY. Admiral McVay, you do not have any tenders or gunboats, do you?

Admiral McVAY. Yes, sir. As of the 1st of January, we required \$1,000,000 to complete the gunboats and four auxiliaries.

Mr. KELLEY. You will do that before the 1st of July, will you?

Admiral McVAY. I think it will be safe to say that it will be completed about \$300,000 after the 1st of July.

Mr. KELLEY. What is it that you have not on hand that is required for the manufacture of the gunboats? Is this a 3-inch gun?

Admiral McVAY. No, sir. That is practically finished.

KELLEY. You do not want any money for that at all?

miral McVAY. No, sir.

KELLEY. You do not have anything to do with the repair ships
iders?

miral McVAY. That covers the batteries for all the repair ships
enders.

KELLEY. What do you need for that?

miral McVAY. \$1,000,000.

KELLEY. What do you need it for?

miral McVAY. We do not need it after the 1st of July.

KELLEY. You do not need anything at all for that next year?

miral McVAY. No, sir.

DESTROYERS.

KELLEY. There are three more destroyers: How much will
ant for them after the 1st of July?

miral TAYLOR. Nothing. They are being finished under the
emergency fund, and will be finished this year. They are not
the "Increase of the Navy," anyway. I might say that the
cost of those we will build at Mare Island will be apparently
1,000 apiece, as against \$1,500,000 or \$1,600,000 for those we are
ng by contract. The work on them progressed rather slowly,
was uneasy for fear they would cost more than that.

KELLEY. The other destroyers will not be built?

miral TAYLOR. No, sir.

KELLEY. You will not need any money for destroyers?

miral McVAY. No, sir.

KELLEY. You had some \$10,000,000 last year, as I recall, left
from that fund?

miral McVAY. Yes, sir.

KELLEY. Have you any of that left?

miral McVAY. We have a balance of about \$11,000,000.

KELLEY. You had a \$40,000,000 fund, and the department di-
it up with some other offices. How much did they leave you?

miral McVAY. \$11,000,000.

KELLEY. You have not spent any of it?

MANUFACTURE OF TORPEDOES.

miral McVAY. We are expending it in the manufacture of tor-
s right along.

KELLEY. Have you made torpedoes for the battleships that
be scrapped?

miral McVAY. Yes, sir.

KELLEY. Are they of the same size? They fit the same tubes,
ey not?

miral McVAY. No, sir. This is the actual number of torpedoes
ed under the department's ruling, and I can not change it at
at I have recommended that we cut it down. I think that
mendation will be approved.

KELLEY. When did they make this ruling—since the con-
e?

miral McVAY. No, sir.

SUBMARINE CONSTRUCTION.

Mr. KELLEY. How much will you need to finish the sub are under construction?

Admiral TAYLOR. Before that, may I suggest that we rassed from time to time by the fact that "Increase of the in these two appropriations, "Torpedo boats" and "C. and if you gentlemen could see your way clear to put it in priation it would save some money and avoid embarr time to time.

Mr. KELLEY. This is carried in a separate paragraph crease of the Navy?"

Admiral TAYLOR. Yes; and the estimate was entirely in That was simply put in for the reason that we knew that mate last year would be revised. The amount allowed l \$5,000,000. As to the S boats, S-10 to S-51—there are 38 we will need to complete after the 1st of July about \$12,000

Mr. KELLEY. How many of them are there?

Admiral TAYLOR. There are 38 S boats on that list, and 41 including the three V type.

Mr. KELLEY. Do you expect to finish them next year?

Admiral TAYLOR. As you know, those boats have been in suspense for nearly two years owing to troubles about the and inability to agree with the contractors as to what shou Recently that has all been cleared up; we have rewritten u tracts on a lump-sum basis and we are now prepared to g and finish those boats very promptly. That has recently b we have stopped all the cost-plus business and they are on a basis. They give us machinery that Admiral Robi wanted in them.

Mr. KELLEY. They are going to make everything satisfactory!

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Are the engines all right?

Admiral TAYLOR. The engines, I think Admiral Ro you, will be satisfactory. Of course, I only know it by we have accomplished a great deal in putting these v lump-sum contract and forcing the contractor to give satisfactory.

Mr. KELLEY. The engines are all right, are they?

Admiral ROBISON. The best we can get.

Mr. KELLEY. They are not all right, but they are t can get?

Admiral ROBISON. They are the best that we can g

Mr. KELLEY. They are not perfectly satisfactory to y ?

Admiral ROBISON. They are the best I can get; I w id say anything more than that. The faults with the past have been very serious; the engines have failed w to use them and the shafts have broken, but I do not ink will break in the new ones, and it appears that m of defects will have been corrected. However, the fact : development of the Diesel engine has just about r that the steam engine had reached in 1840, and we are tain quite as satisfactory machinery as I could wish f ; ing the date of the designs, I think it is fair to the c

we have done, and I do not think we have a right to haggle as to defects.

KELLEY. Do you think you ought to have 40 men besides the boat to take care of every submarine in the Navy?

AIRAL ROBISON. On each boat?

KELLEY. Yes.

AIRAL ROBISON. The Germans did during the war; I do not know how many are necessary, but there is nothing I know of that requires special training so much as the crew of a submarine.

KELLEY. The crew goes out, and it is rather arduous and difficult service.

AIRAL ROBISON. The first thing they have to do is to keep it from sinking.

KELLEY. But I mean they can not stay out very long at a time without discomfort, because they do not have any physical comforts on the ship itself.

AIRAL ROBISON. There is no opportunity for moving about or for fresh air, and it is unhealthy.

KELLEY. When they come in how long should they stay, as a rule, to rest up?

AIRAL ROBISON. The Germans during the war, when they were using them at their fastest rate, kept them in port a little more than half the time.

KELLEY. That was the very best they could do when the life of our nation was at stake?

AIRAL ROBISON. That was the best they could do.

KELLEY. In peace times they would not attempt anything like

AIRAL ROBISON. No; we would not have any expectation of getting more than 20 per cent of operating time; I think that, as a rule, they are limited to 20 per cent of operating time.

KELLEY. If a crew operated one week out of four they could rest in and rest up comfortably in another week, I suppose, and they would have a couple of weeks in which they could assist in making repairs and that kind of work.

AIRAL ROBISON. Yes; they are doing that pretty much continu-

KELLEY. I know, but we have a situation where we have 40 men in addition to the crew for every submarine in the Navy.

AIRAL ROBISON. Yes. We are hampered in the submarine crews, in most cases where we need artisans by the necessity of retraining the men to do the special work. You have been on a submarine, have you not?

KELLEY. Yes.

AIRAL ROBISON. Think of the fellow who determines whether the boat goes up or down.

KELLEY. I know it is very arduous.

AIRAL ROBISON. No; that is not difficult if you know how.

KELLEY. It is like everything else.

AIRAL ROBISON. But we have got to get some people who know and we have to take farmer boys and make them fit.

KELLEY. We could figure on these ships being in port about fourths of the time in peace time?

Admiral ROBISON. I think 20 per cent is the maximum that they are allowed to be under way, under the orders of Operations, but that is an order that is not addressed to me and I can not give you a definite answer.

Mr. KELLEY. Admiral McVay, are you interested in these mines for next year?

Admiral McVAY. Only to the extent of the torpedoes.

Mr. KELLEY. You have a lot of submarines on hand, and not take the torpedo tubes off of them and put them right ships?

Admiral McVAY. No, sir; we have not a sufficient number.

Mr. KELLEY. Are they different?

Admiral TAYLOR. The submarine tubes are built in the way that they are fixed, and the tubes have to be made for each boat specification.

Mr. KELLEY. But the torpedo is the same, is it not?

Admiral McVAY. No, sir; it has a short range.

Mr. KELLEY. Could you not use the old type of torpedoes, the short ones?

Admiral McVAY. No, sir. All of the old short ones that assigned to vessels are the ones——

Mr. KELLEY (interposing). You have a lot of old short torpedoes that are to be scrapped; you have 15 old boats that are to be scrapped, and those torpedoes are short, I suppose the same length as these, are they not?

Admiral McVAY. No, sir.

Mr. KELLEY. How much do you want for torpedoes for the next year?

Admiral McVAY. We will spend \$1,800,000 to complete the submarine program.

Mr. KELLEY. After the 1st of July?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Does that include these fleet submarines?

Admiral TAYLOR. No, sir. Of the fleet submarines, we are building at Portsmouth, and they will cost in the end about \$3,250,000 apiece, at least, those are the bids we got from outside contractors. I thought we ought to have next year about \$3,250,000 to carry on the work; in other words, we would carry on the work at the same rate and that is about the rate at which the work has been going on so far.

Mr. KELLEY. \$3,250,000 for the three?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. And you will need all of that next year?

Admiral TAYLOR. Yes, sir. It will take \$12,000,000 for the fleet ships, and we are counting on using \$3,250,000 for the minesweepers next year.

Mr. KELLEY. Will it take \$12,000,000?

Admiral TAYLOR. \$12,000,000 is the total cost. I think that those vessels are of a new type, and the fleet is very different from the ones in service for the purpose of developing tactics and all kinds of things.

Mr. KELLEY. Are these engines known to work better than the old ones?

Admiral ROBISON. They are the best engines that we have. In the war the Germans developed a submarine engine in a way that we developed the Liberty engine; they brought out the talent they had in Diesel engine building, they had

its, all their experience, and evolved an engine which we have able to duplicate. We believe that this engine, which is an American product—it is made in St. Louis—is as good an engine as the Germans have been making.

r. KELLEY. Why would it not be better to finish one and see whether it is all right before you spend so much money?

Imiral ROBISON. You refer to the engine?

r. KELLEY. Yes.

Imiral ROBISON. We have.

r. KELLEY. You know it is all right?

Imiral ROBISON. Yes; I know it is all right. I do not think it is probable that any engine to-day, of the Diesel engine type, will be considered 20 years hence to be satisfactory.

r. KELLEY. Oh, no. How does the cost of these compare with the fleet submarines we have?

Imiral TAYLOR. They are approximately double the displacement double the cost. The other fleet submarine cost about \$1,500,000, they are vessels of something over 1,000 tons, and they were constructed for before the war, while these vessels are entirely different. They are of our own design and are the first fleet submarines we have undertaken to design.

r. KELLEY. Admiral McVay, how much are you interested in three?

Imiral McVAY. These are included in the others.

r. KELLEY. Admiral how much money have you unexpended as of the last available date?

Imiral TAYLOR. For increase of the Navy, construction and maintenance, \$14,350,000; that was as of the 1st of March, as closely as an estimate it.

r. KELLEY. You mean unexpended or unobligated?

Imiral TAYLOR. Unexpended.

r. KELLEY. That is the cash on hand on that date?

Imiral TAYLOR. That is the money which has not gone out of construction and maintenance appropriation, but it is all obligated and more than obligated.

r. KELLEY. How much did you have appropriated last year?

Imiral TAYLOR. Under construction and maintenance, \$53,000,000, and we had a balance on the 30th of June of \$5,117,000.

r. KELLEY. What other building funds have you besides this?

Imiral TAYLOR. The submarines, sir, "Increase of the Navy, torpedo boats."

r. KELLEY. And how much did you have on hand on March 1 of that fund?

Imiral TAYLOR. \$6,278,000.

EMERGENCY FUND.

r. KELLEY. You have another fund, have you not, an emergency fund, and how much have you in that fund?

Imiral TAYLOR. You mean the \$350,000,000 fund?

r. KELLEY. Yes.

Imiral TAYLOR. We expect to have a little balance in time; that is when we are paid back from the contractors, but at present there

is practically nothing in that fund; I think the nominal balance is \$200,000 or \$300,000 of our allotment.

Mr. KELLEY. Then, all the funds which you and Admiral Robison have—

Admiral TAYLOR (interposing). There is one other fund, the naval emergency fund, in which there is no balance so far as we are concerned. The only real money we have is in "Increase of the Navy."

Mr. KELLEY. The total is \$20,628,000, and that represents every dollar you can get your hands on legally for shipbuilding?

Admiral TAYLOR. On the 1st of March so far as I know, sir: those minor exceptions of which I spoke.

Mr. KELLEY. How much are you expecting to spend between and the 1st of July on the *Colorado*?

Admiral TAYLOR. I have not the allotments between now and 1st of July. The total amount allotted to the *Colorado* and *Lexington* together at the beginning of the year was \$4,900,000, of which the major portion has been spent. As you know, we had to an allotment to each ship and to each yard at the beginning of

Mr. KELLEY. That was for the year, was it?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. About \$400,000 a month. Would that be \$1,600,000 if you built along at the same rate, that is, at the \$400,000 a month?

Admiral TAYLOR. Perhaps I can explain that by saying allotted the New York Shipbuilding Corporation, which had two vessels and a battle cruiser, for expenditure during the \$8,900,000. We told them that if they spent all the money would not get any more, but as regards the individual ships had to be a little come and go within the yard allotment. The amount in that on the 1st of March was \$2,300,000, which we had expected to spend on the ships building there, either the *Colorado* or *Lexington*, if she were converted. Of course, Mr. Chairman, I explain that that money is also over-obligated. We have ties—

Mr. KELLEY (interposing). We will handle those in a way, I think, so let us keep to these funds for building. This money available on the 1st of March is money with which to build and not with which to settle.

Admiral ROBISON. Then I understand that all of our actions in connection with these vessels will be handled so.

Mr. KELLEY. That is what we want to do.

Admiral TAYLOR. There are pressing debts that would be a good deal of the \$20,000,000.

Mr. KELLEY. How much would you say you would expect the *Colorado* during the rest of the year?

Admiral TAYLOR. Well, we have been going along—

Mr. KELLEY (interposing). You have been spending a month and you were allotted \$4,900,000 for two ships.

Admiral TAYLOR. Yes; but a good deal of that money was also absorbed in paying the May and June bills and that was uniformly distributed. At the beginning of this calendar year we figured an approximate expenditure on the *Colorado* of \$400,000 a month; that is the rate at which we were spending.

KELLEY. Then there are four months at about a quarter of a month?

ADMIRAL TAYLOR. If we kept on at the same rate.

KELLEY. Do you want to drop back?

ADMIRAL TAYLOR. No; for the sake of economy we should go ahead.

KELLEY. Suppose that for these three months or four months on along about as we are now, just taking an easy calculation, would be about \$1,000,000 on each of these ships?

ADMIRAL TAYLOR. Approximately.

KELLEY. How much faster than that would you like to go?

ADMIRAL TAYLOR. We would like to go about three times as fast. Now up and pay the overhead of a big yard is a very expensive situation for the Government.

KELLEY. You probably would not want \$1,000,000 for each ship at the end of the year.

ADMIRAL TAYLOR. Not for the rest of the year; no, sir; because there is not enough money to do that.

KELLEY. For each of these two ships you were spending \$225,000 a month, and for four months that would make \$1,000,000 on each ship?

ADMIRAL TAYLOR. That was the rate at which we were spending, we tried to figure as closely as we could on the first of the year money which was to go out on all of these ships, but you must remember that taking the year as a whole we only have 40 per cent of what we would normally spend if we had a free hand on this whole sum. We gave a little preference to the *Colorado*, and the allotment of that money was one of the most difficult jobs we have ever

KELLEY. You have been very considerate of the business situation in the country, and it has been very helpful to us. Even if it is a trifle more, the burden is so great that we appreciate the situation.

ADMIRAL TAYLOR. All we did was to cut our coat to suit the cloth.

BATTLE CRUISERS.

KELLEY. You would not need anything for the battle cruisers at the end of the year?

ADMIRAL TAYLOR. We are spending money on them every day, sir, until we get that bill through.

KELLEY. Are you really going forward with the construction?

ADMIRAL TAYLOR. No, sir; we have suspended everything, but we are prepared to resume the work, and we can not help spending a little bit on them.

KELLEY. Did not Mr. Butler say he would put that through promptly?

ADMIRAL TAYLOR. I think they expect to do it promptly.

KELLEY. So it would be a rather negligible amount?

ADMIRAL TAYLOR. Unless we get the money to pay for scrapping it would not be a large sum; no, sir.

FRENCH. How does it run in comparison with ships being built under contract?

ADMIRAL TAYLOR. I am referring to ships under contract.

Mr. KELLEY. Suppose the bill should be passed within a say, by the 1st of April; there would be three months of the left, and it would take you that long to get your plans per-

Admiral TAYLOR. Yes, sir; we would not spend a large those ships this year.

Mr. KELLEY. So we can, in a general way, just eliminate that!

EXPENDITURES FOR MACHINERY.

Admiral TAYLOR. I would not say eliminate it, because chinery is going ahead, and the machinery will be practically changed, and we would at once get the plans out which are not to carry on.

Mr. KELLEY. Let us get the amount necessary for the m-

Admiral ROBISON. You mean how little we can get along with?

Mr. KELLEY. Yes. During the rest of the year about how would you naturally expend?

Admiral ROBISON. For the two ships?

Mr. KELLEY. For the *Colorado* and *West Virginia* you \$2,000,000 down here; that will be about \$225,000 a month for construction and machinery, so in a way it is included; would not that take care of you all right?

Admiral TAYLOR. We were spending on those ships, with the exception of the *Ranger*, which was practically suspended and very little work going on—but on the other ships building under way we were spending at the rate of from \$350,000 to \$500,000 a month.

Mr. KELLEY. On these two?

Admiral TAYLOR. On the *Lerington*, *Constellation*, and *Thetis*. They ran \$532,000, \$343,000, and \$348,000 a month.

Mr. KELLEY. How would that be divided between machinery and construction?

Admiral TAYLOR. That would be approximately, as regards the *Thetis*, on which we are spending \$350,000, about \$150,000 or \$200,000.

Admiral ROBISON. \$150,000 each is my figure.

Mr. KELLEY. About how much will be required for machinery on the airplane carriers?

Admiral ROBISON. \$10,000 per calendar day.

Mr. KELLEY. And there would probably be about three months left after you get authority to make the expenditures?

Admiral TAYLOR. Yes, sir. If the bill is not passed until the 1st of April we will have the plans ready to resume work promptly. We are working on the plans now, of course.

EXPENDITURES FOR THE FISCAL YEAR 1922.

Mr. KELLEY. We will go ahead now with the expenditures for the balance of this fiscal year. On the basis that these cruises are to be converted, how much will you require this year for the work?

Admiral TAYLOR. For these two cruisers?

Mr. KELLEY. Assuming now it will take some time to get your plans ready and there are only four months left from the 1st of March.

Admiral TAYLOR. We would spend at least \$1,250,000

ALLEY. On the two?

1 TAYLOR. Yes, sir; we could spend \$3,000,000 on the two the money.

ALLEY. There is no hurry or rush about this work. Let us 10,000 and see how we come out. You will not need to do the rest of this year on the airplane carriers.

1 McVAY. I figured out about \$200,000 a month ought to be.

ALLEY. We are only handling this fund now, anyhow. The 10 is for the two.

1 TAYLOR. That is the very minimum, sir.

ALLEY. Now, on the scout cruisers, at what rate have you been doing on them for the last eight months.

1 TAYLOR. The allotment for the year to the scout cruisers 50,000, which was at the rate of building them in six years, have been carrying on the work at that very slow rate. We end at least \$5,000,000 in this last four months.

ALLEY. That is only a little bit faster than you have been doing them during the past year.

1 TAYLOR. Not very much. I must say it is somewhat because a lot of that allotment of \$13,150,000 was virtually when it was allotted in paying back bills and paying up for , so that we spent money faster the first part of the year are spending it now, but you can see for yourself that the 10 would be a little over \$4,000,000 for the four months, and tried the work on at that slow rate we would spend over 10 in the four months, and \$5,000,000 is a modest figure.

ALLEY. Now, as to the auxiliaries, how much do you want to do those?

1 TAYLOR. \$1,500,000 for the rest of the year, approxi-

ALLEY. That is for the five and includes the gunboat.

1 TAYLOR. Yes, sir.

ALLEY. How much on the destroyers? That is out of another 10 not?

1 TAYLOR. Yes; that comes out of the naval emergency 10 is not a part of the balance we are considering.

ALLEY. Then, as to the submarines, how much do you think 10 to have for the rest of the year on those?

1 TAYLOR. We were a little hampered about that. One of the conditions which the contractor wished to introduce in connection with the making of this lump-sum contract—I am referring now to B. Company, was that he should have a schedule of completion that the work would not dawdle. He wanted more than 10 able to allot him with that balance available, so that we want to spend every penny of that during the rest of this

ALLEY. Every penny of what?

1 TAYLOR. Of the balance we now have of \$6,000,000. If you look at those submarines, Governor, you will see that four of them are nearly completed and we are very anxious to get those completed and clean them up, and we have allotted them 10 money to finish them this spring.

ALLEY. How much is that for the rest of the year?

Admiral TAYLOR. That is something like four or five thousand dollars.

Mr. KELLEY. I mean altogether for submarines.

Admiral TAYLOR. Altogether for the S boats and the submarines, in round figures, it is \$6,000,000 for the last 6 months of the year.

Mr. KELLEY. That is crowding them along pretty fast, is it?

Admiral TAYLOR. No, sir; you must remember that we have \$14,197,000 available the 1st of July, but there was very little done on the E. B. Company submarines until we came to this agreement about a month ago, so although the work was suspended it was very nearly suspended, and in discussing with the contractor, he said, "I can not afford to make a contract and then wait indefinitely until Congress appropriates money to finish these vessels." That was one of the details of negotiation, and one point was that he wanted us to have \$5,000,000 on those vessels alone for the rest of the year, but we could only give him \$3,000,000.

Mr. KELLEY. You want to spend the balance of this money for the rest of this fiscal year and clean them all up?

Admiral TAYLOR. No, sir; not clean them all up, but clean up four Lake boats. We need in addition to that \$6,000,000, \$1,000,000 more to finish all the S boats.

Mr. KELLEY. That is for next year.

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. But you want to spend \$6,000,000.

Admiral TAYLOR. Yes; in cleaning up the Lake boats and the work under the lump-sum contract.

Mr. KELLEY. Is that all?

Admiral TAYLOR. That is all; yes, sir.

Mr. KELLEY. That makes \$15,750,000 out of a total of \$20,000,000.

Admiral TAYLOR. Yes, sir; and that is reducing them to \$4,250,000.

Mr. KELLEY. And then you figure you would not have a balance over \$5,000,000 on the 1st of July.

Admiral TAYLOR. No, sir; we really ought not to have a balance. We ought to get the work done. I am looking at it from the point of view of getting the work done economically.

Mr. Chairman, I think you have overlooked one battleship.

Mr. KELLEY. Is not the *Maryland* finished?

Admiral TAYLOR. Either the *West Virginia* or the *Washington*.

Mr. KELLEY. No; we have those here—the *Colorado*, the *Delaware*, or the *Washington*—\$1,000,000 apiece.

Admiral TAYLOR. I do not like to question your arithmetic, but there must be a mistake somewhere.

Mr. KELLEY. It adds up all right.

Admiral TAYLOR. Have you included \$5,000,000 for the submarines?

Mr. KELLEY. \$5,000,000 for the scouts.

Admiral TAYLOR. And \$2,000,000 for the two battleships.

Mr. KELLEY. And \$1,250,000 on the airplane carrier and \$6,000,000 on the submarines.

Admiral TAYLOR. Yes; that seems to be right. There are a number of odds and ends of bills yet to be paid.

Mr. KELLEY. What about the bills that will be cancelled in the future—that are to be scrapped; you are not paying any for them?

Admiral TAYLOR. We are not paying anything we can avoid, but they are still coming in, and we still owe the money. The approximate total obligation outstanding the 1st of February was \$37,000,000. That does not include the cost of scrapping. They are the contracts extant.

Mr. KELLEY. Let me see if I have that straight. Suppose you ordered material for one of the ships that is to be scrapped and the material is fabricated and not yet delivered, would not that be a proper charge against the scrapping?

Admiral TAYLOR. That would be, and that is what we would expect to do; but until we get that authority these people are still finishing material and delivering it and sending in the bills.

Mr. KELLEY. And are you paying for that now?

Admiral TAYLOR. We have to pay for it. We are putting off all we can, but we have to pay some of it. It is a legal bill.

Mr. FRENCH. Why could not the fabrication of that material be held up?

Admiral TAYLOR. We have suspended all the work.

Mr. KELLEY. That would be a proper charge against the loss from the scrapping?

Admiral TAYLOR. Yes, sir. We are slowing that down to the very minimum; but if a man delivers the material he has a written contract, and there is the money there to pay him.

Mr. KELLEY. And, of course, it is the same thing in the end to the Government.

Admiral TAYLOR. Yes. We are stretching it as much as we can but we can not absolutely stop expenditures. Those obligations extant are in the neighborhood of \$37,000,000 for material, subcontractors, and that kind of thing. In addition to that, we have the question of the fees to the shipbuilders, which will amount to even or eight million dollars more.

Mr. KELLEY. That is in the cost of the scrapping?

Admiral TAYLOR. Yes, sir; and in addition to that there is the cost of the scrapping itself, inventorying, the general adjustments, the cost of sale, etc., and we have not been able to figure so far that the cost of the scrapping would be much, if any, under \$50,000,000; in fact, my people insist it is going to be more, but I am rather optimistic.

TUESDAY, MARCH 14, 1922.

Mr. KELLEY. We have with us this morning Admiral McVay and his assistants, of the Bureau of Ordnance. Admiral, we will follow the suggested outline I sent you, because I suppose that will be the best way to approach this.

Admiral McVAY. Yes, sir.

UNEXPENDED BALANCES ON HAND JULY 1, 1921.

Mr. KELLEY. What are the unexpended balances you had on hand of the various appropriations as of July 1, 1921?

Admiral McVAY. Increase of the Navy, armor and armament, \$1,726,775.02; increase of the Navy, ammunition, \$12,411,055.43; increase of the Navy, torpedo-boat destroyers, ordnance, \$12,828,-

745.36; increase of the Navy, torpedo-boat destroyers, torpedo assembly plant, Alexandria, Va., \$89,364.30; naval emergency fund, ordnance allotment, \$894,255.67; appropriations under ordnance for increase of the Navy, armor and armament, fiscal year 1922, \$33,000,000.

Mr. KELLEY. Did you have any money from any other sources?

Admiral McVAY. To these appropriations should be added amounts returned from the War Department in adjustment of requisitions not completed, as follows: Increase of the Navy, armor and armament, \$196,927.20; increase of the Navy, torpedo-boat destroyers, ordnance, \$2,844,948.60.

Mr. KELLEY. Making a total available on the 1st of July, 1921, of how much?

Admiral McVAY. \$83,992,071.58.

UNEXPENDED BALANCES FEBRUARY 1, 1922.

Mr. KELLEY. Give us substantially the same information for the last available date, February 1 or March 1, 1922.

Admiral McVAY. The last available date is February 1, 1922. Balance under increase of the Navy, armor and armament, \$27,935,364.02; increase of the Navy, ammunition, \$6,956,762.94; increase of the Navy, torpedo-boat destroyers, ordnance, \$13,703,979.16; increase of the Navy, torpedo-boat destroyers, torpedo assembly plant, Alexandria, Va., \$48,559.60; naval emergency fund, ordnance allotment, \$937,992.26. That is higher than the balance last year on account of a credit adjustment from the Bureau of Supplies and Accounts, where they found they had charged about \$100,000 twice. That makes a grand total of \$49,582,657.98.

OUTSTANDING CONTRACT OBLIGATIONS.

Mr. KELLEY. The next item will represent your outstanding contract obligations under each of the appropriations reported.

Admiral McVAY. For ships to be completed: Increase of the Navy, armor and armament, \$6,141,421.81; increase of the Navy, ammunition, \$2,467,301.58; increase of the Navy, torpedo-boat destroyers, ordnance, \$1,529,209.04; increase of the Navy, torpedo-boat destroyers, torpedo assembly plant, Alexandria, Va., \$3,983.75; naval emergency fund, ordnance, \$564,384.

Mr. KELLEY. That makes a total of all outstanding obligations of how much?

Admiral McVAY. \$10,706,300.18. This is distributed by vessels and under vessels by objects outstanding and contract obligations reported under paragraph 6 hereof.

Mr. KELLEY. That is the information you just gave?

Admiral McVAY. That is tabulated below; yes, sir. There is a note to that which I want to enter here: The total contract obligations reported by the Bureau of Supplies and Accounts includes contracts, work on which has been suspended, and also contracts for miscellaneous manufacturing equipment and material incident to manufacturing work at navy yards, the expense of which totals \$33,368,248.22, as opposed to the balance which we gave, because they have the bookkeeping data only, and we have distinguished between

contracts which will have to be completed and those that canceled.

LEY. The sum which you gave a few moments ago, of \$10,- presents contracts which must be completed?

McVAY. Yes, sir.

CANCELLATION OF UNOBLIGATED CONTRACTS.

LEY. And the other sum of \$25,000,000 represents contracts which will be canceled?

McVAY. Yes, sir.

LEY. And that will involve a settlement with the contractor material that has been delivered and the question of payment in order to keep this record straight as of the time when the contract was made, it would seem to me that that item would be charged against the cancellation and would be carried into the account for cancellation rather than loaded on to the Navy as a disbursement.

McVAY. No, sir.

LEY. Well, suppose, for example, you have a certain number of dollars of supplies which you have purchased for the ships that are being discontinued, but have not yet been ordered to keep this record straight as of the time when the contract was made, it would seem to me that that item would be charged against the cancellation and would be carried into the account for cancellation rather than loaded on to the Navy as a disbursement.

McVAY. I see what you mean and I am trying to see how we could handle it in that way.

18. What constitute the elements of a cancellation charge?

McVAY. I have explained to Governor Kelley that when we issued our orders on the 8th of February to suspend work, at the same time we instructed the inspectors to make an inventory of all the work at its various stages, and to report that to the bureau. In addition to that, we had the larger manufacturers in the bureau and asked them to give us an itemized list of their standby charges. You see, the work is suspended, not stopped. Our instructions are to be able to start it at any time in case it is necessary.

ELEMENTS CONSTITUTING A CANCELLATION CHARGE.

18. I should like to know, for my own satisfaction, what elements constitute a cancellation charge complete?

McVAY. The main elements would be payment of cost of the work up to the time the work is stopped.

18. It does not constitute any prospective profit on the work or anything of that kind?

McVAY. No, sir. In addition to that, the various plants maintain a skeleton organization prepared to start the work.

18. That is an element?

McVAY. That is an element that enters in. Those are the elements that enter in. By the stoppage of the work we incur an expenditure of about \$80,000 a day. The suspension, so nearly as I can figure from the data I have observed, has not yet been thrashed out before a board, is about \$80,000 a day. In other words, instead of saving \$80,000 a day by

suspension we are saving something like \$70,000 a day and the suspension charge is regarded as a legitimate charge.

Mr. DAVIS. I am not questioning that. I just wanted for information and for the record to show what were the elements within the meaning of a cancellation charge.

Admiral McVAY. Yes, sir.

AMOUNT OUTSTANDING AGAINST UNCOMPLETED SHIPS.

Mr. KELLEY. There are outstanding \$29,223,231.16 against all these ships?

Admiral McVAY. Yes, sir; under "Armor and armament."

Mr. KELLEY. Of that \$29,223,231.16 some of the material delivered, but you do not know how much?

Admiral McVAY. No; because the Bureau of Supplies counts is paying bills as they come in.

BALANCE OVER AND ABOVE ALL CONTRACT OBLIGATIONS FOR SHIPS TO BE BUILT.

Mr. KELLEY. Admiral, in order to get this information statement, as I understand it, the total unexpended balances on January 1, 1922, were \$49,582,657.98?

Admiral McVAY. Yes, sir; under all appropriations.

Mr. KELLEY. Of that sum, there will be required \$10.7 take care of outstanding contract obligations upon the ships not to be discontinued, and it is estimated that of this amount will require \$36,435,725 to complete the work on vessels that are to be discarded?

Admiral McVAY. Yes, sir; under all appropriations.

Mr. FRENCH. Do you mean that this amount is in addition \$10,000,000?

Mr. KELLEY. That is in addition to the \$10,000,000, is it not?

Admiral McVAY. Yes, sir.

Mr. FRENCH. This \$36,435,725 that Governor Kelley refers to amounts to money that may be appropriated during the coming year; is that right?

Admiral McVAY. No, sir; we will not require an appropriation.

Mr. FRENCH. It will be expended during the coming year.

Admiral McVAY. Yes, sir; some of it.

Mr. KELLEY. That is for the completion of all those ships, whether completed next year or not?

Admiral McVAY. Yes, sir; the \$10,000,000 plus the \$36,435,725 round numbers.

Mr. KELLEY. Then, the difference between the \$10,706,300.18 and the \$49,582,657.98 would give a difference of \$2,500,000 which you would have over and above all your obligations for ships that are to be finished?

Admiral McVAY. Yes, sir.

Mr. KELLEY. We can start, then, with about \$2,500,000 over there?

Admiral McVAY. Yes, sir; that is, under different assumptions.

Mr. KELLEY. I am speaking of the sum total of \$2,500,000 over and above all that will be necessary to complete all the work on all the ships that are to be discarded.

Admiral McVAY. Yes, sir.

ELLEY. That does not include aircraft carriers, I suppose?
 al McVAY. No, sir.

ELLEY. Because they are not now contract obligations.

al McVAY. No, sir; that is true.

YRNES. As I understand it, when you get through, or have
 ed all that are in process of construction, you will have a bal-
 practically \$2,500,000?

al McVAY. Yes, sir.

NT REQUIRED FOR BALANCE OF THIS FISCAL YEAR AND NEXT YEAR.

ELLEY. Of the \$49,582,657.98, which you had on hand on the
 ebruary, how much will be required for the balance of this
 ir and how much will be required for next year?

al McVAY. I will supply that for the record. Approxi-
 \$4,800,000 for the balance of this fiscal year and approxi-
 \$1,000,000 for next year.

ELLEY. Of the \$10,706,300.18 you propose to spend for fire
 nd optical instruments \$1,639,700.50?

al McVAY. Yes, sir; for battleships.

MOUNT INVOLVED IN CONTRACTS UPON VESSELS TO BE FURNISHED.

ELLEY. Of the \$49,582,657.98, \$10,706,300.18 is tied up in con-
 on vessels that are not to be stopped?

al McVAY. Yes, sir.

ELLEY. You will put in the record a statement showing how
 the \$10,706,300.18 will be required during the balance of this
 ir?

al McVAY. Yes, sir; approximately \$2,300,000.

REQUIRED TO FULFILL ALL OUTSTANDING CONTRACTS NOT TO BE CANCELED.

ELLEY. The next is the distribution of the amounts estimated
 ary to finish all outstanding contracts that are not to be can-
 ounting in all to \$36,435,725?

al McVAY. Yes, sir.

ELLEY. You will put in the record a statement showing the
 hat which will be needed during the coming fiscal year, from
 n?

al McVAY. Yes, sir; approximately \$22,500,000 for contract
 s and work at navy yards.

ELLEY. Of this amount, \$36,435,725, the contracts are not yet
 nd some of it to be done in the navy yards and Government

al McVAY. Yes, sir.

ELLEY. And some by contract; but if done by contract, the
 are not yet made?

al McVAY. No, sir.

REQUIRED FOR BALANCE OF FISCAL YEAR FOR UNCANCELED CONTRACTS.

ELLEY. Would any part of this \$36,435,725 be required dur-
 -balance of this fiscal year?

Admiral McVAY. Yes; we are using that right along.

Mr. KELLEY. In the navy yards?

Admiral McVAY. Yes, sir.

Mr. KELLEY. What part of that amount?

Admiral McVAY. We will have to put that in the same as the. We could answer that roughly by saying \$450,000 a month armor and armament; under ammunition we are running \$94,000 a month; under torpedo-boat destroyers we are running \$276,000 a month; and under the other appropriations the war about finished.

Mr. KELLEY. At that rate you would need something \$4,000,000 out of this fund for the remainder of the year?

Admiral McVAY. Yes, sir.

FINANCIAL STATUS OF BUREAU JULY 1, 1922.

Mr. KELLEY. So there would be a balance of approximately \$10,000,000 of this amount and whatever balance there was \$10,000,000 which represents contract obligations, plus the general surplus over all. That would represent about your situation on the 1st of July, would it not; and to make that accurate put in at this point a statement showing your financial condition on July 1, with the understanding as to cancellations have talked of. The main thing we want is your financial situation on the 1st of next July.

Admiral McVAY. Very well.

Estimated status as of July 1, 1922, of ordnance appropriations for war to be completed.

These figures are based upon the assumption that all outstanding against the appropriations named, other than those specifically named, are to be transferred to a special "scrappling" appropriation; and, further, that the appropriations named are to be the special "scrappling" appropriation for all expenditures in amounts made since February 1, 1922, other than those incurred actually on account of the ships to be completed.

Appropriation.	Estimated balance on July 1, 1922.	Estimated contract obligations on July 1, 1922.	Estimated as necessary to complete in excess of outstanding contract obligations July 1, 1922.	Total estimated required to complete as of July 1, 1922.	
Increase of the Navy:					
Armor and armament	\$25,981,376	\$6,210,211	\$4,865,535	\$11,1	
Ammunition	6,211,770	2,128,771	3,241,220	5,3	
Torpedo boat destroyers					
Ordinance	12,669,912	8,671,442	17,432,747	26,104,	
Torpedo boat destroyers					
torpedo boat destroyers					
plant, Alexandria, Va.	41,376				
Naval emergency fund (ordnance)	271,698				
Total	44,784,142	17,009,425	25,569,502	42	

Appropriation.	Estimated cash balance as of July 1, 1922.	Estimated contract obligations on July 1, 1922.	Estimated as necessary to complete in excess of outstanding contract obligations July 1, 1922.	Total estimated required to complete as of July 1, 1922.	Estimated as required for the fiscal year 1923.	Estimated total required after July 1, 1923.
These may be subdivided as follows:						
Increase of the Navy—						
Armor and Armament—						
Battleships.....		\$1,679,916	\$1,769,795	\$3,449,711	\$2,955,631	\$494,080
Scout cruisers.....		1,772,624	1,356,621	3,129,245	3,129,245	
Destroyers.....		2,293,471	298,607	2,592,078	2,592,078	
Submarines.....		464,200	1,333,513	1,797,713	1,389,244	408,469
Tenders and auxiliaries.....			136,999	136,999	136,999	
Total.....		6,210,211	4,895,535	11,105,746	10,203,197	902,549
Ammunition—						
Battleships.....		1,974,710	2,212,845	4,187,555	3,964,130	223,425
Scout cruisers.....		149,064	1,028,375	1,177,439	1,098,839	78,600
Total.....		2,123,774	3,241,220	5,364,994	5,062,969	302,025
Torpedo boat destroyers (ordnance).....		8,671,442	17,432,747	26,104,189	15,750,337	10,353,852
Total, all appropriations.....		17,005,427	25,569,502	42,574,929	31,016,503	11,558,426

AMOUNT TO BE EXPENDED NEXT YEAR ON BATTLESHIPS.

Mr. KELLEY. Are you ready to go into the question of construction for next year on the ships that are not be scrapped or had you, Admiral Taylor, and the committee better have a discussion about that?

Admiral McVAY. That is all covered in here; except as to the airplane carriers, that is all in here now.

Mr. KELLEY. How much do you want to spend next year on the battleships?

Admiral McVAY. Under "armor and armament," approximately 2,900,000; increase of the Navy, ammunition, \$3,900,000.

Mr. KELLEY. That is for what ships?

Admiral McVAY. That is for the *Colorado*, the *Washington*, or *West Virginia*.

Mr. KELLEY. That is for two battleships?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Have you the ammunition for the *Maryland*?

Admiral McVAY. We have that; yes, sir; except the 5-inch 25 caliber and some special type 16-inch.

Mr. KELLEY. And that is the amount included in here of \$266,400, is it?

Captain PINNEY. That is, the ammunition details for it and the projectiles are included in the item above.

Mr. KELLEY. So this is the total amount you will need for the three battleships next year?

Admiral McVAY. Yes, sir. Approximately as follows, for contract payments and work at navy yards: Armor and armament, 2,900,000; ammunition, \$3,900,000; total, \$6,800,000.

Mr. KELLEY. Showing the amount to be spent on these battleships next year?

Admiral McVAY. Yes sir; obligations already incurred and new obligations.

Mr. KELLEY. That is, for next year?

Admiral McVAY. Yes, sir.

Mr. KELLEY. The proportion that is in the \$10,000,000 should be added here?

Admiral McVAY. Yes, sir; we will fix that.

Mr. KELLEY. There are certain items here that are under obligations and the others under navy yards?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And you have to put the two together in order to get the total for the battleships?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Then suppose we confine this to the navy yards because this amount is tied up in contracts and that will take care of itself.

Admiral McVAY. Yes, sir. For work at navy yards only in 1923: Armor and armament, approximately \$1,100,000; ammunition, approximately \$862,000; total, approximately \$1,962,000.

AMOUNT TO BE EXPENDED ON SCOUT CRUISERS.

Mr. KELLEY. How much for the scout cruisers?

Admiral McVAY. At navy yards and stations, for increase of the Navy, armor, and armament, \$1,102,000; increase of the Navy, ammunition, \$260,500.

Mr. KELLEY. The sum of those two items would represent what you require for the scout cruisers?

Admiral McVAY. Yes, sir; for work at yards and stations in 1923. That is chiefly for special ammunition and some material.

Mr. KELLEY. This is made necessary by changing the guns from 3-inch to 5-inch? I think you said the other day you had 3-inch guns and mounts but it was decided to replace those with 5-inch guns.

Admiral McVAY. That was on the battleships, the new ones.

Mr. KELLEY. These are not 3-inch guns, are they?

Admiral McVAY. No, sir. The scout cruisers have 3-inch guns.

Mr. KELLEY. So that has not been changed?

Admiral McVAY. No, sir; we are just changing them on the new ships.

Mr. KELLEY. I thought you said the other day you had 3-inch guns and 3-inch mounts.

Admiral McVAY. Yes; and we are putting them on there.

Mr. KELLEY. They are paid for, too, are they not?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You have here \$1,019,000 for the mounts.

Admiral McVAY. I will tell you what you may be interested in. The fact that we found that those vessels were very much cheaper in comparison with similar vessels that they would cost against and we put four more guns on them.

Mr. KELLEY. Of the larger type?

Admiral McVAY. No; 6-inch guns. But we put the closed mount because the emplacements have to be so close

st interference would make them untenable; so we have made al hood inclosing the whole mount, so that when a gun is e blast would not knock out the members of the crew. That, , is what you meant. They are the same kind of guns.

AMOUNT TO BE EXPENDED ON DESTROYERS.

KELLEY. Under destroyers it appears that you are going to 2,293,112 worth of torpedo outfits. Over how many years you probably figure on spreading that?

ral McVAY. Between four and five years in our plants alone, giving contracts to the Bliss people it would be a much shorter

KELLEY. What is the capacity of the Alexandria plant?

ral McVAY. About 175 a year.

KELLEY. That was a war plant. Are you figuring on clos-

ral McVAY. No, sir.

KELLEY. You intend to keep that going?

ral McVAY. Yes, sir.

KELLEY. Why not close it down?

ral McVAY. I do not think it is wise to close any of the plants he shortage.

KELLEY. In the matter of making torpedoes?

ral McVAY. Yes, sir; I think it would be quite wrong.

KELLEY. The only thing that is left in our inquiry is with ref- to the completed material on hand, and the possibility of · from one to another?

ral McVAY. We do that all the time.

KELLEY. You are not going forward with the fabrication of erial for vessels that are not to be finished?

ral McVAY. It is all suspended, except a very few minor

KELLEY. Items which you can use for some other ships?

ral McVAY. Yes, sir; where it would cost us as much or more as to go ahead.

KELLEY. Such exceptions as exist to the rule you have laid e specified in this table, practically?

ral McVAY. Yes, sir.

FRIDAY, MARCH 17, 1922.

HYDROGRAPHIC OFFICE.

IS OF CAPT. FREDERIC B. BASSETT, JR., HYDROG-
ER OF THE NAVY, AND MR. A. F. BOGUE, CIVILIAN
TANT.

SALARIES.

KELLEY. We have with us Captain Bassett, head of the raphic Office of the Navy Department, and Mr. Bogue, his . We have here the salaries of the Hydrographic Office. · increases in salaries suggested or increases in the number oyees?

Captain BASSETT. There are no increases in the statu in the temporary roll; in fact, the estimate for next y case is less than or the same as for last year.

Mr. KELLEY. You have reduced the number in one c to 7?

Captain BASSETT. Yes, sir.

Mr. KELLEY. You take out one at \$900?

Captain BASSETT. Yes, sir; two at \$1,000 each and two low at \$900.

Mr. BYRNES. There is a reduction of two at \$1,000 e \$720; two at \$900 each; one at \$800; and two at \$1,000

Captain BASSETT. Yes, sir.

Mr. KELLEY. You are doing very nicely; there are no and those are to come out.

Captain BASSETT. That is the way it stands, and the t 540 for the statutory roll, plus \$109,490 for the temporary

Mr. KELLEY. Let us take the statutory force first. You for how many?

Captain BASSETT. Our preliminary estimate w was the same as for last year, but that was reduced 5 direction of the department at the instance of the Bureau Budget, and it stands now at \$109,540.

Mr. KELLEY. That is the permanent roll?

Captain BASSETT. Yes, sir.

Mr. KELLEY. Those are all right and we could not cha if we wanted to, because that is fixed by law and we do any new law. What about the lump-sum roll?

Captain BASSETT. Our preliminary estimate to the was \$110,000, but the final estimate is \$109,490. Last \$110,000, so it is less in this case than it was last year. also reduced by 5 per cent.

Mr. BYRNES. Was it not \$111,000 last year?

Captain BASSETT. No, sir; \$110,000.

Mr. BOGUE. The appropriation was \$110,000, but for number of people when we made it up it was \$111,250.

Mr. KELLEY. The employees on the temporary roll during the war, and we supposed that when the would be discontinued. What is the need of keepin

DUTIES OF OFFICE.

Captain BASSETT. The work of the Hydrographic Office ent in a very small degree only on the size of the Navy. words, the Hydrographic Office exists by act of Congr to supply charts and nautical books primarily to the Navy; the original organic act of 1837, I think; subsequently, wants of merchant shipping—which has no way of p own charts. Congress directed that the Hydrograph to the merchant ships, "at the cost of printing and sary charts and nautical books, so that the functi or graphic Office is twofold, primarily to provide the navy and nautical books, sailing directions, pilot charts, etc., of peace and in time of war, and, secondarily, to prov publications to the merchant marine. In time of war,

stly essential that the control of such activities should be under Navy Department; that is, the supply of charts, nautical publications, as many of these are confidential, and they should not be used by anyone else. As regards the merchant marine, they have their way of getting charts through United States sources except the Hydrographic Office, or its agents, although for our own use they can get charts from the Coast and Geodetic Survey.

KELLEY. Do you furnish these charts free?

MAIN BASSETT. No; we furnish them at the cost of printing and—charts and nautical books.

KELLEY. But you do not charge anything for the force?

MAIN BASSETT. No, sir; the overhead must be maintained in any case. It makes very little difference whether we print 100 or 200 copies of a chart, the cost is very little, and we get enough in, and into the Treasury enough, to pay for the printing and the paper, so it is all Congress required in this matter.

KELLEY. Why do you need to have more employees unless you have charts that you would not make for the Navy?

MAIN BASSETT. The point is, in the first place, that out of a force of 23 in my office only 23 are clerical, the others being all technical. We are at work, first, on producing charts from our own surveys; second, the reproduction of charts prepared by foreign Governments. Every Government sends to our Hydrographic Office copies of every new chart it produces, and we, in turn, do the same for all Governments that reciprocate.

KELLEY. Suppose we did not furnish charts to the merchant marine, how much of this temporary force could you do away with?

MAIN BASSETT. It makes no difference, because the charts have been prepared anyway.

KELLEY. Tell us what work you are doing that you did not do during the war.

MAIN BASSETT. I will have to go into a little detail in order to show what the principal work is. The Hydrographic Office issues charts for all vessels charts printed from 4,344 copper or zinc plates.

KELLEY. Would all of those be needed for the Navy Department?

MAIN BASSETT. Yes, sir; every one of them.

KELLEY. How did you get along before the war when you did not have your temporary roll?

MAIN BASSETT. We have just started in recent years the reproduction of foreign charts—that is to say, we get a paper chart from the Hydrographic office, we will say, and we take that chart and make corrections up to date and photograph it on zinc plates, our chief aim being ultimate independence of Great Britain in the production of charts. At the present time we are dependent on Great Britain for charts printed from 1,109 plates.

KELLEY. Where are these locations?

DEPENDENCY ON GREAT BRITAIN FOR CHARTS.

MAIN BASSETT. I have here in my hands a chart which shows graphically our dependence on Great Britain for charts from all over the world. The percentages are as follows: Australian waters, 100 per cent; Sweden, Norway, Denmark, Germany, Holland, France,

Spain, Portugal, and the British Isles, 74.5 per cent; Mediterranean Sea, 66.5 per cent; Africa and African waters, 28.5 per cent; Arabia, and the Indian Ocean, 27.8 per cent.

Mr. KELLEY. It is not your idea, Captain, to set up a hydrographic office here which would make original surveys all over the world?

Captain BASSETT. No, sir. We do not anticipate making original surveys, but we hope by photographic processes to reproduce all the charts in the world, making our own plates, then using them up to date, so we will be independent of every country's charts.

Mr. KELLEY. So you will always have to depend on somebody else for charts?

Captain BASSETT. But we will not be dependent on anybody to make the plates ourselves. Within recent years there has been developed the process of photozincography. You take a photographic paper chart such as sent us by foreign hydrographic offices on a glass plate; then that glass plate is coated with asphaltum and "negative cutters" go over all the outlines and trace them. Some of the charts we get from Great Britain and other countries are not as clear as they should be and do not photograph well. They have to be recut. When these are recut and are all ready to be photographed by a special process on a thin zinc plate, and on a zinc plate we have a positive—not a negative, but a positive—which we subsequently print our charts of that particular area. We can make by that process, which was only perfected in 1913, 100 prints an hour, whereas by the old copper-plate process we can print about 80 a day, because a flat copper plate is used. Every time a print is made, then cleaned off, then ink is used, making another impression, etc.

Our object is to make ourselves independent of the British Government or any foreign government in case the supply of charts is denied us. We did have trouble in getting charts from England during the war, and we would not have gotten them at all if we had not been associated with them. In one instance during the war we had long delay in delivery of charts from Britain.

Mr. KELLEY. That is, they did not furnish them in time for your needs so that you could supply your service?

Captain BASSETT. They could not furnish them in time for our needs.

Mr. KELLEY. So you find you are obliged to have them make reproductions from them?

Captain BASSETT. Yes, sir.

Mr. KELLEY. Would it not be feasible to enter into an agreement with Great Britain whereby they would supply us with the charts of the kind they make?

Captain BASSETT. That would be all right in time of trouble you would not be able to get them.

Mr. KELLEY. Then you would have to build up your own in time of trouble to make reproductions?

Captain BASSETT. Yes; and it would be impossible.

Mr. KELLEY. Why?

Captain BASSETT. Because it will be a matter of years, it has been figured by our experts, before we can produce the present 1,100 charts that we are now oblig-

sources. We also got very far behind during the war through t of our own, and there are many corrections that have to be n our own plates. There have been changes in lights, changes lepths of water, and everything of that kind, and during the was impossible to keep up to date as the information did not , so that now we are flooded with post-war work, and we have an do to keep our present plates up to date without making productions. Furthermore, it is impossible to obtain com- men at the wages paid. A large lump sum would not help a raise in salaries.

ELLEY. How do you correct your charts?

in BASSETT. We have a correspondence with over 5,000 mari- in my office now we have a card index of 5,000 mariners who odically sending us nautical information.

ELLEY. I get the idea. Our ships which are out all over the ake a report to you whenever they find a chart in error?

in BASSETT. Yes; by our own mariners, also by foreign mari- When information is obtained in this way it is immediately l to us and we issue it the same day, being sent out as a Daily ndum, and we follow that up every Wednesday with a Bulletin, and every Saturday we get out what is known as ice to Mariners, and this notice is by all odds a most val- set to the maritime world.

FEE CHARGED FOR CHARTS TO MERCHANT MARINE.

ELLEY. Could you not sell these charts to the Shipping Board private shipping interests for enough to cover a reasonable of reproduction?

in BASSETT. As a matter of fact, we are charging—

ELLEY (interposing). Suppose you did not have them for ere would the International Mercantile Co. get its charts?

in BASSETT. Either they would have to be produced by us or pany would have to buy them from the British.

ELLEY. Why do you not charge them a reasonable price which ver the cost of reproduction?

OGUE. We do sell them.

ELLEY. But only at the cost of printing and paper.

OGUE. That is the law, and we sell none over 70 cents while sh charge over a dollar. They have just raised their prices.

ELLEY. Why can you not make this thing self-supporting if od thing and if it is needed by all the merchant marine?

in BASSETT. If the merchant marine bill passes the demand ts will be enormous.

ary DENBY. It is about on a par with the lightships, and you t want to make the merchant marine pay for the lightships.

ELLEY. If we could cut off a lot of these things which are a ble naval burden—

YRNES (interposing). It would make a considerable reduc- he bill.

ELLEY. And I think that would be a good thing to do.

YRNES. The act was simply passed to aid the merchant marine ll way by giving them these charts.

Captain BASSETT. But if you aid the merchant marine you are aiding the Nation.

Mr. BYRNES. I am not discussing that; I am stating what was evidently the object, and not discussing the merits of the thing.

Captain BASSETT. Our charts do not cost more than half what the British charts cost at the present time, but I want to particularly emphasize the fact that we are dependent on Great Britain for 1,100 charts, and that the force we now have is barely able to keep p with the work of correcting the charts, and when I say "correct the charts" I mean correcting the plates. There is a tremendous amount of work connected with the correction of these plates for the information we receive from all parts of the world. I looked a chart yesterday that was in its fifty-second edition: that means the plate had been corrected and the old paper prints made 52 times. If I remember correctly, it was a chart of the West Indies, where we have a great many changes all the time. One chart is in its one hundred and thirty-ninth edition. I could talk a long time on this point, but I do not want to detain the committee any longer than necessary. However, I would like to make a few remarks in general about chart correction.

CHARTS MADE BY COAST AND GEODETIC SURVEY.

Mr. KELLEY. Before you go into that, let me ask you this question: Is anybody else making this kind of chart in our Government?

Captain BASSETT. By law the Coast and Geodetic Survey makes all the charts for the United States waters and for the United States foreign possessions.

Mr. KELLEY. And you get your charts from them?

Captain BASSETT. We get charts from 642 plates from them.

Mr. KELLEY. You do not duplicate anything our own Government is doing?

Captain BASSETT. No, sir.

Mr. KELLEY. Outside the 3-mile limit is really where your work begins?

Captain BASSETT. Yes, sir; and we have the foreign countries well.

Mr. KELLEY. I say, outside the 3-mile limit.

Captain BASSETT. Yes, sir; that is correct. May I add some figures? In the Hydrographic Office we have our own chart plates the number of 2,593; we buy from British sources and supply naval vessels 1,109 charts, and we get for naval vessels, free of charge, charts from 642 plates from the Coast and Geodetic Survey, making a total of charts from 4,344 plates.

REDUCTION OF STATUTORY ROLL.

Mr. KELLEY. In 1919 you spent about \$190,000 for what you now asking \$109,000, so you are coming down some, are you? You are evidently reducing your force or reducing the pay.

Mr. BYRNES. As a matter of fact, he has reduced it below the appropriation for 1915.

Mr. BOGUE. The statutory roll has been greatly reduced, while other roll has been increased to a certain extent. This year we are dropping off 12 positions; in other words, we are losing 12 people in the lower grades. It was not conceded that the office should re-

was done on account of the 5 per cent cut being required by the Bureau.

BYRNES. You have increased your lump-sum roll?

BOGUE. No; it is reduced over last year.

WILLIAM BASSETT. All of our appropriations are reduced this year.

KELLEY. Are you reducing the number of employees or the

WILLIAM BASSETT. We are reducing the number by 12.

KELLEY. That reduction is made in the statutory roll?

WILLIAM BASSETT. Yes, sir; the lump-sum roll will be approximately the same next year.

KELLEY. You want the same number of men and at the same

BOGUE. Yes, sir. It might be added that the pay is not commensurate with the character of work. We can not now get men of equal caliber for that pay. That is one of our worst difficulties. The Coast and Geodetic Survey does similar work and the pay of its employees averages much higher.

WILLIAM BASSETT. At the proper time I would like to read a short report relating to increases in the salaries in the Hydrographic Office and insert it in the record.

BOGUE. In connection with your inquiry a little while ago, why should we not cut the force down, you must bear in mind that we have 1,600 charts on issue; about 1,109 of those are British charts, and we must make reproductions of them to issue to our Navy. As everybody knows, our Navy cruises all over the world and not only on the coast. The demand for charts on our office is from six to ten times greater than any prewar demand.

KELLEY. Suppose we put a price on these charts which would cover the overhead; you could sell them just the same, could you

BOGUE. There is another feature that should be considered. The Navy must have the charts, and it costs considerable to make plates for the charts. For example, if you make a survey, it costs \$50,000 to \$100,000 for the data for perhaps one chart, but when you once have the chart plate for the Navy there is very little cost for printing; it is merely a matter of putting it on the press and you can run off one or a dozen in 10 or 15 minutes, the additional cost is for the paper only, which averages about \$100 per chart.

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(papers referred to follow:)

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Navy must have the charts, and it costs considerable to make plates for the charts. For example, if you make a survey, it costs \$50,000 to \$100,000 for the data for perhaps one chart, but if you once have the chart plate for the Navy there is very little cost for printing; it is merely a matter of putting it on the press and you can and running off one or a dozen in 10 or 15 minutes, the additional cost is for the paper only, which averages about ten cents per chart.

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DECEMBER 9, 1921.

Secretary of the Navy.

Bureau of Navigation and Budget officer for Navy Department.

Subject: Pay of employees in the Hydrographic Office, United States Coast and Geodetic Survey, and United States Geological Survey.

Reference: The Budget for the service of the fiscal year ending June 1
Inclosure: (A) Supplementary report for Hydrographic Office made in
ance with salaries allowed similar positions in the Coast and Geodetic
and Geological Survey.

1. With the publication of the Budget, it has come to the attention
hydrographer that the present discrepancies in pay between employees
Hydrographic Office and in the Coast and Geodetic Survey and the Ge
Survey doing similar work will not only be continued but will be increa

2. In 1920 the hydrographer recommended increases to bring the sal
the employees of the Hydrographic Office up to those of the employees
departments of the Government doing the same work. These increas
admitted to be only fair, but were denied on the ground of economy.

Again in 1921 the hydrographer submitted estimates to include incre
bring the pay of the employees of the Hydrographic Office up to that
Coast and Geodetic Survey and Geological Survey. He was directed
stitute estimates equal to those of the previous year, and then to cut t
imates 5 per cent. This was done and the estimates of the Hydrographi
reduced accordingly. Meanwhile, in two other departments, Interior a
merce, the Geological Survey and the Coast and Geodetic Survey not
tained their previous increases but have obtained approval of estimat
carry further increases over their previous salaries, which were already
than the present salaries paid for similar work by the Hydrographic Offi

3. To indicate clearly the injustice being done to the employees of the
graphic Office, the following tables taken from the Budget are submitted.
tables, for the sake of brevity only, include a section of the employees
reference to the Budget will show that these tables are typical of the
salary list of the three institutions.

Department of Commerce, Coast and Geodetic Survey.	Department of the Interior, Geological Survey.	Department of the Hydrographic Office.
Cartographers: 1, at \$5,040; 2, at \$4,750; 1, at \$4,500.	1 chief topographic engineer, at \$5,000; 1 division topographic engineer, at \$4,500.	Technical aide, at \$2,400 sections (technical), at
Associate cartographers: 2, at \$3,800; 3, at \$3,600; 3, at \$3,300.	2 cartographers, at \$3,600; 5 assist- ant cartographers, at \$3,000.	Draftsmen: 1, at \$2,0 \$1,800; 5, at \$1,600; 8, 4, at \$1,200.
Assistant cartographers: 2, at \$3,000; 3, at \$2,750; 3, at \$2,500; 3, at \$2,250; 3, at \$2,000.	4 junior cartographers, at \$2,400; 1 junior topographic engineer, at \$2,040; 4 cartographic drafts- men, at \$2,040.	1 hydrographic surveyor 1 computer, at \$1,400. NOTE.—3, at \$1,000 \$900, omitted.
Junior cartographers, 4, at \$1,800. NOTE.—Replaces 2 topo- graphic and hydrographic drafts- men, at \$2,900; 3, at \$2,460; 6, at \$2,260; 6, at \$2,060; 3, at \$1,800; 6, at \$1,600; 6, at \$1,400; 2, at \$1,200; and 2 copyist draftsmen, at \$1,200, omitted.	1 copyist topographic draftsman, at \$1,400; 2 copyist draftsmen, at \$1,640.	3 apprentice draftsmen,
Chief chart corrector, at \$1,800.	.....	1 draftsman, at \$1,800.
4 chart correctors, at \$1,440. NOTE.—In lieu of 1 clerk, at \$1,200; 2 topographic and hydrographic draftsmen, at \$1,200; and 2 copyist drafts- men, at \$1,200.	.....	7 draftsmen, at \$1,000.
Copperplate engravers: 1 chief engraver, at \$3,000; 3 senior copperplate engravers, at \$2,880; 3, at \$2,760; and 3, at \$2,640; 3 master copperplate engravers, at \$2,400, and 3, at \$2,160; 2 apprentice copperplate en- gravers, at not exceeding \$1,200. NOTE.—Replaces 1 copper- plate engraver, at \$2,500; 2, at \$2,400; 3, at \$2,200; 3, at \$2,000; 2, at \$1,800; 2, at \$1,600; 3, at \$1,400; and engravers and ap- prentices at not exceeding \$1,000 omitted.	.....	Engravers: Chief, at \$2, \$1,800; 3, at \$1,800; 1, 6, at \$1,200. NOTE.—2, at \$1,000, \$720, omitted.
	.....	Apprentice engravers: 1 1, at \$700.
	.....	Plate printers: Chief, at at \$1,200; 1, at \$1,000. NOTE.—2, at \$900, s \$800, omitted.
	.....	Apprentice plate print \$700; 1, at \$600.
	.....	Lithographers: Chief, at NOTE.—2, at \$1,000 o

4. The total increase of the appropriation for the United
Coast and Geodetic Survey is approximately \$500,000, much of
is absorbed in increased salaries for the cartographic branch

but it was done on account of the 5 per cent cut being required by the Budget Bureau.

Mr. BYRNES. You have increased your lump-sum roll?

Mr. BOGUE. No; it is reduced over last year.

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Captain BASSETT. But if you aid the merchant marine the Nation.

Mr. BYRNES. I am not discussing that; I am stating definitely the object, and not discussing the merits of the thing.

Captain BASSETT. Our charts do not cost more than half British charts cost at the present time, but I want to emphasize the fact that we are dependent on Great Britain charts, and that the force we now have is barely able to keep up with the work of correcting the charts, and when I say "the charts" I mean correcting the plates. There is a tremendous amount of work connected with the correction of these plates. The information we receive from all parts of the world. I had a chart yesterday that was in its fifty-second edition; that the plate had been corrected and the old paper prints it destroyed or canceled 52 times. If I remember correctly, it was a chart of the West Indies, where we have a great many all the time. One chart is in its one hundred and thirty-ninth edition. I could talk a long time on this point, but I do not want to keep the committee any longer than necessary. However, I will make a few remarks in general about chart correction.

CHARTS MADE BY COAST AND GEODETIC SURVEY.

Mr. KELLEY. Before you go into that, let me ask you this: Is anybody else making this kind of chart in our Government?

Captain BASSETT. By law the Coast and Geodetic Survey makes all the charts for the United States waters and for the United States foreign possessions.

Mr. KELLEY. And you get your charts from them?

Captain BASSETT. We get charts from 642 plates from Great Britain.

Mr. KELLEY. You do not duplicate anything our own Government is doing?

Captain BASSETT. No, sir.

Mr. KELLEY. Outside the 3-mile limit is really where your work begins?

Captain BASSETT. Yes, sir; and we have the foreign charts as well.

Mr. KELLEY. I say, outside the 3-mile limit.

Captain BASSETT. Yes, sir; that is correct. May I add this? In the Hydrographic Office we have our own charts. The number of 2,593; we buy from British sources for our naval vessels 1,109 charts, and we get for naval vessels, in charge, charts from 642 plates from the Coast and Geodetic Survey, making a total of charts from 4,344 plates.

REDUCTION OF STATUTORY ROLL.

Mr. KELLEY. In 1919 you spent about \$190,000 for the roll, now asking \$109,000, so you are coming down \$81,000. You are evidently reducing your force or reducing the roll.

Mr. BYRNES. As a matter of fact, he has reduced the appropriation for 1915.

Mr. BOGUE. The statutory roll has been greatly reduced. The other roll has been increased to a certain extent. It is dropping off 12 positions; in other words, we are dropping the lower grades. It was not conceded that the roll

s done on account of the 5 per cent cut being required by the Bureau.

YRNES. You have increased your lump-sum roll?

OGUE. No; it is reduced over last year.

in BASSETT. All of our appropriations are reduced this year.

KELLEY. Are you reducing the number of employees or the

in BASSETT. We are reducing the number by 12.

KELLEY. That reduction is made in the statutory roll?

in BASSETT. Yes, sir; the lump-sum roll will be approximately the same next year.

KELLEY. You want the same number of men and at the same

BOGUE. Yes, sir. It might be added that the pay is not commensurate with the character of work. We can not now get men of per caliber for that pay. That is one of our worst difficulties. Coast and Geodetic Survey does similar work and the pay of employees averages much higher.

in BASSETT. At the proper time I would like to read a short statement relating to increases in the salaries in the Hydrographic Office and insert it in the record.

BOGUE. In connection with your inquiry a little while ago, why did not cut the force down, you must bear in mind that we have 600 charts on issue; about 1,109 of those are British charts, and must make reproductions of them to issue to our Navy. As you all know, our Navy cruises all over the world and not only on foreign coasts. The demand for charts on our office is from six to ten times greater than any prewar demand.

KELLEY. Suppose we put a price on these charts which would cover the overhead; you could sell them just the same, could you

BOGUE. There is another feature that should be considered. The Navy must have the charts, and it costs considerable to make reproductions for the charts. For example, if you make a survey, it costs \$50,000 to \$100,000 for the data for perhaps one chart, but you once have the chart plate for the Navy there is very little cost for printing; it is merely a matter of putting it on the press and running off one or a dozen in 10 or 15 minutes, the additional cost is for the paper only, which averages about \$1 per chart.

LETTERS RECOMMENDING INCREASES IN SALARIES.

KELLEY. Captain, I believe you wanted to put a statement in the record.

in BASSETT. It is a letter from the Hydrographic Office to the Secretary of the Navy recommending an increase of salaries. I like to introduce it. It bears the approval of the Bureau of Navigation and of the Secretary of the Navy, and there accompanies it a report from the Director of the Budget Bureau. (The papers referred to follow.)

DECEMBER 9, 1921.

Secretary of the Navy.

Bureau of Navigation and Budget officer for Navy Department.

Pay of employees in the Hydrographic Office, United States Coast and Geodetic Survey, and United States Geological Survey.

Mr. BOGUE. In 1920 the cash receipts turned into the T^h for the sale of charts and nautical books amounted to \$108,442 and in 1921 they dropped off to \$61,392.

Mr. KELLEY. What was the reason?

Mr. BOGUE. There was a gradual falling off after the war. In 1919 it was \$77,863.68.

Mr. KELLEY. And how much in 1909?

Mr. BOGUE. Less than \$10,000.

Mr. KELLEY. When you did not have the extra men.

Mr. BOGUE. That shows that the merchant marine needs the Hydrographic Office charts.

CONTINGENT EXPENSES, BRANCH HYDROGRAPHIC OFFICES.

Mr. KELLEY. For "Contingent expenses, branch hydrographic offices," you had last year \$15,000. How much are you asking for the next fiscal year?

Mr. BOGUE. \$15,000. This is for miscellaneous expenses of the different branch offices. Rent takes over one-third of it—\$5,000.

Mr. KELLEY. Who occupy the offices?

Captain BASSETT. Naval officers, nautical experts, clerks, and messengers.

Mr. KELLEY. That is \$1,000 an office?

Mr. BOGUE. Yes. That includes rent, stationery, time, etc.

Mr. KELLEY. You have had about that amount right along?

Mr. BOGUE. Yes, sir.

ADVANTAGES AND DUTIES OF BRANCH OFFICES.

Mr. FRENCH. What is the advantage of maintaining these branch offices?

Captain BASSETT. The mariners get all the latest hydrographic information and the correct time from our offices, and they get the latest corrected charts and Sailing Directions. Many come in to consult the branch hydrographic offices before they start on their voyages, and they get the very latest information on their sailing. These offices also issue free to observers charts in exchange for hydrographic information. A small personnel is sufficient, nautical experts are sent to visit and collect the information and to distribute Hydrographic Circulars. At the branch offices personal contact is made with the mariner who is taught to regard the Hydrographic Office as his headquarters, to which he can always turn for guidance in nautical matters and which he should support by reporting hydrographic information.

Secretary DENBY. That is why you have officers?

Captain BASSETT. Yes, sir.

Secretary DENBY. A clerk would not have the information?

Captain BASSETT. No, sir; or the experience necessary. We need experienced mariners. Then we have our agents for charts in a great many ports which these officers supervise.

Mr. KELLEY. That looks like quite a wastage there to have officers in these stations.

Captain BASSETT. I was just explaining why it was necessary.

retary DENBY. It did not appeal to me strongly, but perhaps we have given the real reason.

Captain BASSETT. The branch offices have been established for a many years. In addition to naval officers there are nautical assistants, clerks, and in some cases messengers. They always have in their offices corrected copies of every Hydrographic Office chart. As the mariners come in and get the latest information from the Notice to Mariners. One of these Notice to Mariners [indicated] comes out every week, and from this they get all the latest hydrographic information.

KELLEY. Do you print that?

Captain BASSETT. Yes, sir; over 6,000 copies a week.

KELLEY. Do you sell it?

Captain BASSETT. No; it is free to mariners.

retary DENBY. What information do they get that is not contained in the printed articles?

Captain BASSETT. It may be that a merchant captain has not received this [indicating the Notice to Mariners] and he may be sailing for South America. He can go to a branch hydrographic office and consult this. In addition he can get advice on any matter of navigation or hydrography.

KELLEY. The question was the need for these naval offices. Why naval officers instead of civilian clerks?

Captain BASSETT. Because the duty is technical, and such that it should be handled by a naval officer. It is purely nautical work. We have all the charts with the latest information for the mariners up to date. They are also charged with seeing that our authorized agents for the sale of our charts in the different cities keep their charts corrected up to date, and that these agents are not selling out-of-date charts to the merchant captain who desires charts for a voyage. They have also the care of the time balls in many of the ports. They instruct the Naval Militia and Naval Reserves in navigation, and give navigation classes. These officers also collect nautical information by actually boarding incoming vessels.

KELLEY. What grade of officer is sent to these places?

Captain BASSETT. In New York we have a captain. In the other ports they are not higher than lieutenant commander or commander. I cannot give you the list of them here.

KELLEY. Sixteen?

Captain BASSETT. There are officers in charge of 14 offices, a nautical expert in charge at Duluth, and a messenger during the season of navigation at Sault Ste. Marie.

KELLEY. You go on the Great Lakes for any of these enterprises when the Navy is not there? However, that is a matter of administration.

Captain BASSETT. The Navy, by law, has the surveying of the Canadian shore of the Great Lakes and publishes the charts for our Government.

KELLEY. It is valuable to the mariners?

Captain BASSETT. Yes, sir; they do use the charts. All the charts are published from St. Lawrence River from Cornwall, Canada, to the coast are Hydrographic Office charts, and on the Canadian shores of the lakes.

SALARIES AT HYDROGRAPHIC BRANCH OFFICES.

Mr. KELLEY. For services of necessary employees at these places you had \$25,000 and you are asking \$23,700?

Captain BASSETT. \$23,700 is what we ask for.

Mr. KELLEY. It seems to me that these nautical experts were all that you needed at these places, or if you had an officer there you would not need a nautical expert?

Mr. BOGUE. No. Both are necessary: for \$1,200 you would have a very poor man to disseminate nautical information.

Mr. KELLEY. Let us cut the nautical experts off and put there and do it right.

Secretary DENBY. Could not the clerks employed at these offices—

Mr. KELLEY (interposing). These nautical experts are a little above the rank of clerk—they have charge.

Mr. BOGUE. Yes, sir. Three of these were lieutenant commanders during the World War.

LOCATION OF BRANCH OFFICES.

Secretary DENBY. Where are the branch hydrographic offices?

Captain BASSETT. The branch offices are located in Boston, New York, Philadelphia, Baltimore, Norfolk, Savannah, New Orleans, Galveston, San Francisco, Portland, Oreg., Seattle, Duluth, Ste. Marie, Chicago, Cleveland, and Buffalo.

Secretary DENBY. What have you stationed at San Francisco—an officer?

Mr. BOGUE. An officer and two nautical experts.

SALARY AND QUALIFICATIONS OF NAUTICAL EXPERTS.

Secretary DENBY. What are the nautical experts paid?

Mr. BOGUE. One \$1,800 and the other \$1,200.

Secretary DENBY. What else have you there?

Mr. BOGUE. That is all.

Secretary DENBY. The nautical experts are clerks?

Mr. BOGUE. No. They are men qualified by sea experience. A \$1,800 man was a Naval Academy graduate of the class of 1886. He has had this position in San Francisco many years.

Secretary DENBY. Are you not unnecessarily coming misleading by the use of the words "nautical experts," when they are \$1,200 clerks?

Mr. BOGUE. No; nautical experts—men qualified by sea experience for this work—are necessary. All nautical experts employed have these qualifications, and they are not \$1,200 clerks.

Secretary DENBY. What nautical experts have you?

Captain BASSETT. We have not many nautical experts—few—one in Philadelphia, one in Chicago, one in Duluth, one in San Francisco, one in Portland, Oreg., and one in Seattle.

Mr. BYRNES. You have three nautical experts at \$1,200 each.

Mr. BOGUE. Yes; one in Chicago, one in Seattle, and one in San Francisco. A man must have had sea experience to be a nautical expert at the branch hydrographic offices.

ary DENBY. Commissioned rank?

OGUE. Not necessarily. A man who has had sea experience as a quartermaster. Experience of this kind is the only way for the position of nautical expert.

in BASSETT. They must have been to sea in order to be of any value as nautical experts.

ELLEY. Could not we drop your employees back to where they were in 1920, 1919, 1918, 1917, 1916, and 1915—about \$18,000?

in BASSETT. We are crippled now. Our duties at the branch hydrographic offices are increasing all the time. We have begun the collection from and distribution to ships at sea of hydrographic information by radio. This is of great assistance to the fleet but entails a great amount of work upon the Hydrographic Department and the branch hydrographic offices.

Would like the permission of the committee to insert this tabular statement of the work of the branch offices, Mr. Chairman?

ELLEY. It would take quite a lot of printing and I do not think it would be advisable to insert it.

ary DENBY. Reverting to the item "Contingent and miscellaneous expenses," I should like to ask you about the appropriation of \$50,000 in 1922, \$112,000?

OGUE. That is explained by the fact that up to that time we had credited with the receipts from the sales. When the appropriation was \$50,000 we got \$108,000 from sales.

ary DENBY. You used the sales money in 1921 and did not in 1922?

OGUE. Yes, sir.

OCEAN AND LAKE SURVEYS.

ELLEY. The next item is, on page 30, "Ocean and lake surveys," and for the current year you have \$105,000. How much do you want for next year?

in BASSETT. We have \$105,000 for this year, but \$15,000 was expended and we are not touching it, so that leaves \$90,000 for this year. We ask for the same amount for next year.

ELLEY. How much have you spent this year out of this fund?

in BASSETT. We have obligated up to the present time \$75,109, and have unobligated about \$14,000, which will be needed for the remainder of this fiscal year.

ELLEY. This is for work that is done on board the two ships?

in BASSETT. No, sir. This is for the purchase and printing of almanacs, books, and supplies for the hydrographic surveys, in addition to the compensation of the hydrographic surveyors, cartographers, etc., on the U. S. S. *Hannibal* and the shore party in Cuba.

OGUE. And is also for the payment of British charts purchased for our ships abroad. We have spent \$16,000 already and will require to spend about \$5,000 more, making a total of \$21,000. That is, because we have not the plates for these purchased

SURVEYING ALONG CENTRAL AND SOUTH AMERICAN SHORES.

ELLEY. You have two ships that cruise about making the

Captain BASSETT. Only one ship.

Mr. KELLEY. What is it?

Captain BASSETT. The *Hannibal*, making surveys of the east of Nicaragua and Honduras.

Mr. KELLEY. Surveying along the Central and South coasts; they are not up along our own coast?

Secretary DENBY. Down in Honduras.

Mr. KELLEY. They are outside of the United States?

Captain BASSETT. Yes, sir.

Mr. KELLEY. The Coast Survey makes the charts of the States?

Captain BASSETT. Yes, sir.

Mr. KELLEY. And these are in Central and South America?

Captain BASSETT. Central America.

Mr. KELLEY. Their data is sent up here and this app pays for making the charts?

Captain BASSETT. No, sir. This appropriation pays for the work, for making the actual surveys in the field. The ship operated by the Navy Department.

Mr. BOGUE. For signal towers, lumber and canvas for the sounding machines, and instruments to survey, charged to this appropriation, plus civilian surveyors attached to the ship.

Mr. KELLEY. And the draftsmen, etc., are paid out of this fund?

Mr. BOGUE. Yes, sir.

Mr. KELLEY. The charts have to be paid for out of this fund?

Captain BASSETT. No.

Mr. KELLEY. For the payment of services?

Captain BASSETT. For the actual work in the field.

Mr. KELLEY. Including the pay of the necessary hydro surveyors attached to the ship *Hannibal*?

Captain BASSETT. Yes, sir.

Mr. KELLEY. The cartographic draftsmen: where are they?

Captain BASSETT. On the ship.

Mr. KELLEY. And the recorders?

Captain BASSETT. They are on the ship.

Mr. KELLEY. And for the purchase and printing of nautical

Captain BASSETT. That is entirely separate. The publications, Light Lists, and other nautical publications are provided for in this appropriation.

Mr. KELLEY. How much of this appropriation of \$90,000 is for surveying?

TOPOGRAPHIC WORK AT GUANTANAMO.

Captain BASSETT. About \$25,000 for the *Hannibal*, and have a shore party at Guantanamo doing topographic

Mr. KELLEY. How much does it cost to keep it going?

Captain BASSETT. The estimate for this year for the shore party is \$10,000.

Mr. KELLEY. What can they do on shore with these men?

Captain BASSETT. They are making a topographic survey of Guantanamo, Cuba, and vicinity, connecting it up with the work which the Navy has been doing for a number of years.

Mr. BOGUE. This topographic work is in connection with defenses of Guantanamo.

Captain BASSETT. We are making charts of the whole C

PURCHASE AND PRINTING OF NAUTICAL BOOKS.

KELLEY. On page 51 you have, "For purchase and printing of nautical books." Why carry it twice? On page 30 you have, "Purchase and printing of nautical books, charts, and sailing directions." Of course, we can cut all of this out but \$35,000?

Captain BASSETT. No, sir; that cuts out \$55,000, which should remain in the bill. We can not cut to \$35,000 and have the Hydrographic Office operate. The \$90,000 must remain in the bill wherever the appropriation "Ocean and Lakes surveys," appears.

KELLEY. Why separate them?

BOGUE. There has been only one case where printing was paid out of the appropriation, "Contingent and miscellaneous expenses, Hydrographic Office."

KELLEY. What do you do with the other \$55,000; only \$35,000 for the *Hannibal* and the shore party?

BOGUE. For instance, there was \$21,000 for British charts for the Navy for the current fiscal year.

KELLEY. Why buy them out of this fund? -

BOGUE. Because there are not sufficient funds in other Hydrographic Office appropriations.

Captain BASSETT. There has been expended for the present fiscal year \$16,000 for charts and nautical books.

BOGUE. It has been the practice for many years that if a ship, from Gibraltar, is ordered home via the Philippines, for her to go to a British or a Spanish agent, whoever it may be, and buy the necessary charts, and we do not know about this until we get the bill for purchase.

FRENCH. Why is not that cared for on page 51?

Captain BASSETT. The "Contingent and miscellaneous, Hydrographic Office," appropriation is a local administrative appropriation controlled in the Hydrographic Office in Washington. Here-

that appropriation has been in the legislative bill and did not apply to the ships afloat. A large part of the "Ocean and Lakes surveys" appropriation is for the purchase and printing of nautical

KELLEY. You buy books over there?

Captain BASSETT. Some few are bought abroad, but mostly they are bought from the Hydrographic Office.

Secretary DENBY. Is it not feasible, Captain, to put that under the Hydrographic Office?

Captain BASSETT. I can see no objection. I have not been here very long but I see no objection to the plan of combining the appropriation in the Navy bill, "Ocean and Lakes surveys," with the item "Contingent and miscellaneous expenses, Hydrographic Office," in the legislative bill, as both items will now appear in the naval appropriation bill, provided the total appropriation for "Contingent and miscellaneous expenses, Hydrographic Office," is the sum of the two appropriations, viz., \$200,000, and provided thereby we are taking steps which by decisions, etc., might cut us out of our right to this money.

Secretary DENBY. It is illogical where it is. These books come from your central office?

Captain BASSETT. The present appropriation, "Ocean and surveys," is largely for printing; we do not buy many nautical since the Hydrographic Office completed its own 58 volumes of Sailing Directions, or Pilots, of all parts of the world.

Secretary DEXBY. From whom do you buy over there?

Captain BASSETT. From the British, Italian, French, or agents as the case may be, but mainly from the British.

Secretary DEXBY. How do the books get there?

Captain BASSETT. The British publish the same books and that we do, and vice versa.

Secretary DEXBY. Are they the same type of books exactly?

Captain BASSETT. The British publish their charts and books from their latest information, and we do the same from latest information. Each uses the others charts and books in their own charts and books.

Mr. KELLEY. Then this clause "Ocean and lakes surveys" can be put in some part of the bill with "Contingent and miscellaneous expenses, Hydrographic Office."

Captain BASSETT. I think it would be well to put them in place in the bill if the money appropriated remains the same. The sum of the two appropriations under consideration is \$110,000--\$200,000.

Mr. KELLEY. If we cut out the language on page 51, ever will be fixed.

Mr. FRENCH. If we strike out the language on page 51, chairman suggests, "for the purchase and printing of nautical charts, and sailing directions," and incorporate it in the bill on page 51, would the amount carried on page 51 be sufficient? In other words, does the money item amount to \$1,000 or \$1.500, or \$2,000?

Mr. BYRNES. Mr. French wants to know whether, if you delete that language, the amount spent for purchasing charts on special occasions you have described would necessitate this amount of miscellaneous expense?

Captain BASSETT. The trouble is that there is a misunderstanding here. You are assuming that this would apply only to charts under the conditions that have been mentioned—that is, those purchased abroad—a small amount—but the last part of the paragraph "Ocean and lake surveys," on page 30, applies to the purchase and printing of all nautical books. The amounts of money on page 51, "Contingent and miscellaneous expenses, Hydrographic Office," should in this case be changed from \$110,000 to \$200,000, adding the \$90,000 which it is proposed to eliminate from the bill.

Mr. KELLEY. Why not consolidate that whole paragraph into one paragraph? The item on page 30 provides for nautical surveys, including the pay of the necessary hydrographic cartographic draftsmen, and recorders, and for the purchase and printing of nautical books, charts, and sailing directions. Change the heading of the item for "Contingent and miscellaneous expenses, Hydrographic Office," so as to include "Ocean and lake surveys" and put it all in one paragraph.

Mr. BOGERT. It should include "Ocean and lake surveys."

Mr. KELLEY. Put that in the title, making it include "Ocean and lake surveys."

Captain BASSETT. I see no objection to that, provided that the total amount appropriated for "Contingent and miscellaneous expenses, Hydrographic Office," is made \$200,000. This appropriation "Ocean and lake surveys" is an old one, and I would like to see the same recorded preserved if combined with "Contingent and miscellaneous expenses, Hydrographic Office."

MONDAY, MARCH 20, 1922.

NAVAL OBSERVATORY.

STATEMENT OF CAPT. W. D. MACDOUGALL, SUPERINTENDENT.

SALARIES.

Mr. KELLEY. We have with us this afternoon Captain MacDougall, of the Naval Observatory. For the current fiscal year you had \$56,400 for salaries and you are asking the same amount for 1923. There are no increases in salaries and not any increases in the number of employees?

Captain MACDOUGALL. No, sir.

Mr. KELLEY. Could there be any decrease?

Captain MACDOUGALL. No, sir.

Mr. KELLEY. Is this about the way it has been running for a long time?

Captain MACDOUGALL. There was a decrease made after the war in order to get down to practically the prewar basis. There are no increases asked for, although I think that those people deserve an increase, and I hope that sometime they may get what they deserve.

Mr. KELLEY. But you are not asking it this year?

Captain MACDOUGALL. No, sir.

CONTINGENT EXPENSES.

FOR MISCELLANEOUS COMPUTATIONS.

Mr. KELLEY. For miscellaneous computations you had for 1922 \$5,000, and you are asking the same amount for 1923. Those are small items, I suppose, which you can not foresee and they have been the same for years?

Captain MACDOUGALL. Yes, sir.

FOR PROFESSIONAL AND SCIENTIFIC BOOKS, BOOKS OF REFERENCE, PERIODICALS, ENGRAVINGS, ETC.

Mr. KELLEY. For professional and scientific books, books of reference, periodicals, engravings, etc., you had for 1922 \$1,000 and you are asking the same amount for 1923?

Captain MACDOUGALL. Yes, sir.

Mr. KELLEY. That is just to keep up with the procession, I suppose, and get some new things?

Captain MacDOUGALL. Yes, sir. We have a very nominal and mathematical library there.

Mr. KELLEY. And you have had that amount for quite a

Captain MacDOUGALL. Yes, sir.

APPARATUS AND INSTRUMENTS AND REPAIRS TO SAME.

Mr. KELLEY. For apparatus and instruments, and for the same, you had this year \$2,500 and you are asking \$2,500 in 1923?

Captain MacDOUGALL. It is to be hoped that we have no repairs, and if not we will get along all right on that.

Mr. KELLEY. Do you have any income from any repairs of the instruments and apparatus of other departments? For instance, suppose you should repair some instruments for use of Aeronautics?

Captain MacDOUGALL. That would come under "Instruments and supplies," in the naval bill. We have a shop there doing work of that kind but that would not apply to this. Apparatus and instruments was previously in the legislative bill. I think where it is this year.

Mr. KELLEY. If you do work for any other bureau, they just the same as a private firm would be paid?

Captain MacDOUGALL. That is correct.

Mr. KELLEY. The Bureau of Aeronautics is asking \$30,000.

Captain MacDOUGALL. If we had anything to repair for the Bureau of Aeronautics, it would be done under the head of "Instruments and supplies," while this "Apparatus and instruments" applies to only Observatory apparatus.

Mr. KELLEY. Over in your shop I suppose you do work for the Bureau of Aeronautics and they pay you for the labor. Now, what would you do with that money? Would it go into the Treasury?

Captain MacDOUGALL. It would be taken up in the appropriation bill by crediting "Instruments and supplies" against "Aeronautics."

Mr. KELLEY. So you have no funds which you obtain from other bureaus for doing work for other bureaus?

Captain MacDOUGALL. No, sir; we have nothing for "Apparatus and instruments" except what is in this bill.

REPAIRS TO BUILDINGS, FIXTURES, ETC.

Mr. KELLEY. For repairs to buildings, fixtures, and the same, you had this year \$3,500, and you are asking for the same

Captain MacDOUGALL. Yes, sir.

Mr. KELLEY. And you have had that amount off and on for a long time?

Captain MacDOUGALL. Yes, sir.

FUEL, OIL, GREASE, ETC.

Mr. KELLEY. For fuel, oil, grease, pipe, wire, etc., you had this year \$12,000 and you are asking the same amount for

have some new language in this paragraph, "and passenger automobile." What is that?

Captain MACDOUGALL. We have a Maxwell truck out there, which is a big heavy truck meant for heavy work, and that truck often has to make trips down to the Navy Department to carry a letter or something of that sort; we also have in storage a Ford passenger automobile that was given to us during the war for necessary duties; that Ford passenger automobile could be very conveniently, and, I think, economically, used to carry these letters or to carry any officer down to the Navy Department who had to go there on duty; and in using that we could presumably keep it up on the same sum of money, because that would save our Maxwell truck, which is meant for heavy work. Therefore I asked a change in the wording so that I might have permission to use that car, which is now idle and which we can not get going in any other way; I mean it is against the law to run its privately, for instance, and supply our own gasoline or anything of that sort; and it seemed to me it would be a very handy and useful thing, and it could be run on the same amount of money, because there would be that much of a saving on the work necessary for the big truck.

Mr. KELLEY. And you have the car?

Captain MACDOUGALL. We have the car; yes, sir. It looks pretty good, although I have never seen it run.

Mr. KELLEY. This would not necessitate a chauffeur?

Captain MACDOUGALL. No, sir.

Mr. KELLEY. Have you a horse and wagon out there—a horse-drawn passenger-carrying vehicle?

Captain MACDOUGALL. Yes; I am allowed a carriage and a team of horses, but to save time I go in my own automobile, that I am fortunate enough to have.

Mr. KELLEY. But you keep the team, do you?

Captain MACDOUGALL. We use the horses for other things. We have an 82-acre place, you see, and a good deal of what you might call ordinary farm work to do in order to keep things in order—landscape gardening, etc. It is a public park, and it is used more or less by people driving through it, and all that, so that we must take care of the roads and keep things in order. We have to maintain control over it ourselves, otherwise the feature of the observatory which requires us to be in the middle of an undisturbed spot might be broken down by heavy traffic or something of that sort.

Mr. FRENCH. Is that the reason for locating the observatory in that large area?

Captain MACDOUGALL. Yes; it has a radius of 1,000 feet in every direction around the clock vaults, where we have our standard clocks, and from our big telescope. Also it is necessary to have trees and grass around. You should not have too many buildings near to it, nor could it be in the vicinity of ordinary city paved streets, because there would be heat vibrations in the air which would interfere with the astronomy.

Mr. KELLEY. If you had the automobile taken care of, would you need the horse-drawn vehicle in addition? Do you use the horses and buggies sometimes?

Captain MACDOUGALL. Yes, sir; I have a number of carriages there; one is said to have come from the White House. Others do not want them particularly, but they are useful there.

Mr. FRENCH. Do you use the horses in caring for the lawn grounds?

Captain MACDOUGALL. They are used for different things, but are primarily furnished for the use of the superintendent, to bring him down to the Navy Department; that is what they were primarily furnished for.

Mr. KELLEY. You probably do not spend much money in keeping up those vehicles?

Captain MACDOUGALL. I spend practically nothing on the vehicles.

Mr. KELLEY. The language here provides for the operation of horse-drawn passenger vehicles.

Captain MACDOUGALL. The language also provides for the purchase and maintenance of them. Of course, the horses cost something, because they have to be fed and shod, but the carriages do not cost anything.

Mr. KELLEY. You do not spend anything on the carriages to keep them in good shape?

Captain MACDOUGALL. Practically nothing.

Mr. KELLEY. The horses are used not only for the carriages but for work about the place?

Captain MACDOUGALL. Yes, sir; and we could not get along without horses.

Mr. KELLEY. If you could use the automobile it would save bringing the truck down town a good many times? That is your statement, as I understand it?

Captain MACDOUGALL. That is the argument for including a passenger automobile. If I had intended it as a substitute for the superintendent, of course, it would not have come under that appropriation. It is merely a substitute for the truck when it is necessary to do an errand.

CLEANING, REPAIR, AND UPKEEP OF GROUNDS.

Mr. KELLEY. For cleaning, repair, and upkeep of grounds you had this year \$6,500, and for 1923 you are asking for the same amount.

Captain MACDOUGALL. Yes, sir; and that barely covers the necessities.

Mr. KELLEY. Do you want the words "and roads" taken out?

Captain MACDOUGALL. It would be better to have those words remain in the paragraph, because they properly belong there. They were left out by error, as I understand it—a clerical error.

Mr. KELLEY. Last year?

Captain MACDOUGALL. Yes, sir; in the typed document that came from the Navy Department.

NAUTICAL ALMANAC OFFICE.

SALARIES.

Mr. KELLEY. The next item is for salaries, Nautical Almanac Office. Last year you had \$18,420, and you are asking the same amount for 1923?

Captain MACDOUGALL. Yes, sir.

Mr. KELLEY. These are all statutory positions?

Captain MACDOUGALL. Yes, sir. In my opinion these employees are all underpaid for their capabilities, and that is true in comparison with people of similar qualifications employed in some of the more recently established branches of the Government.

Mr. FRENCH. Where does this almanac circulate—among the naval officers on the ships entirely or is there a private demand?

Captain MACDOUGALL. The book is issued in two forms; one is called the American Ephemeris and the other is called the Nautical Almanac. Aboard every ship in the Navy it is necessary to have one or two of the larger books and several of the smaller books for navigational purposes; they are also supplied to the merchant service by sale through the Government Printing Office, and the books, especially the Nautical Almanac, are to be found for sale by all ship chandlers and similar people; who get them from the Government Printing Office.

The Ephemeris is also used by all astronomers and by persons engaged in the study of astronomy. Incidentally, there is a considerable demand from Members of Congress for extra copies of these books, which they generally get from the Government Printing Office. We have an exchange of the Ephemeris with foreign governments and foreign observatories, because we get their books and they give us ours.

PAY OF COMPUTERS.

Mr. KELLEY. For pay of computers on piecework in preparing for publication the American Ephemeris and the Nautical Almanac, etc., you had this year \$1,500, and you are asking the same amount for next year. In some years you have had more than that. Why are you asking for less than you have had for that work?

Captain MACDOUGALL. They made some reductions about two years ago and found they could combine certain things for the sake of economy.

SATURDAY, MARCH 18, 1922.

BUREAU OF ENGINEERING.

STATEMENT OF REAR ADMIRAL JOHN K. ROBISON, CHIEF.

REPAIRS, PRESERVATION, AND RENEWAL OF MACHINERY, ETC.

Mr. KELLEY. "Bureau of Engineering. For repairs, preservation, and renewal of machinery," etc., for the current year you have \$1,500,000. What are your very latest estimates for the coming year?

Admiral ROBISON. \$14,559,837.80, based on the list of vessels furnished pursuant to the letter of March 16 by the chairman of the committee on Appropriations to the Secretary of the Navy; my present estimates totaled \$18,200,000.

Mr. KELLEY. You have a distribution of that, of course?

Admiral ROBISON. Yes, sir. I have here a tabulation showing the expense for a ship of each class in commission and out of com-

; unclassified, in commission, \$5,275; unclassified, out of commission, \$1,000.

On the basis of the number of ships that are retained in one or the other of the three conditions, full commission, half crew, and entirely out of commission, you will get radically different totals as to the amount that will be required for engineering expenses on the vessels.

MR. KELLEY. Assuming that the list of ships you have given here is correct, and that the ships kept in commission, what will be your expense?

MR. ROBISON. The table I have furnished is one that was based on a letter of the chairman of the committee of the 16th of March 1922. The secretary and, I am informed, is the list of vessels that would be in commission if the total naval personnel were 65,000. If I am correct, I can give you the names of these vessels.

MR. KELLEY. Now, that represents, as far as the ships are concerned, on the basis of your figures?

MR. ROBISON. Yes, sir. We have, in addition to that, a considerable number of items that aggregate large figures.

MR. KELLEY. Let us for the moment stick to the ships and consider the other items afterwards.

MR. ROBISON. Terminating that it required \$160,835 under Engineering for a ship that is kept in full commission, how did you arrive at that figure?

MR. ROBISON. I have taken the figures of cost of the fiscal year 1921 and decreased the material cost 18 per cent and the labor cost 10 per cent, which correspond, as closely as I have been able to get, to the present conditions. The figures given are just as accurate as I can estimate. If wages go up next year, these figures are too low, and if they go down these figures are too high. If material goes up in price, these figures are too low, and if material goes down in price, or if I can get a lot of material for nothing greater than what I am now getting for nothing, these figures are too low.

SALVAGE FROM SHIPS SCRAPPED.

MR. KELLEY. What would you say as to the salvage from the scrap program, so far as it affects your bureau?

MR. ROBISON. There is in these ships a lot of apparatus that is fit to use, and if I get permission to use it I shall do so. It consists chiefly of electrically operated pumps, of ice machines that are now being replaced by new ones, or of an improved type to ice machines now being replaced by new ones.

The new ones are operated by CO₂. They cost much less than do the ones that we have installed on many of our ships, and we would like to put them in. They will make the ships cost less.

That sort of thing will save us the price of new material, and if we had money enough otherwise to buy that new material. In other words, these figures do not allow for any improvements of this kind.

MR. KELLEY. They are just repairs and what else?

MR. ROBISON. They include, as given here, Title C—that is, the cost of supplies that are necessary to prevent rust, the cleaning and that sort of thing; Title D—that is, material and labor for repairs incident to service, renewal of condenser or boiler and that sort of thing, or the repair of a turbine; Title K, the current minor alterations that have been passed upon. Every

last one of these things has already been determined as near the fighting efficiency of the ships. It does not include any alterations or improvements for economy. For instance, I want to put on battleship a listening device for these sound instruments, and many of them lack the proper blister in which the receiving is placed. That is one of the class of alterations included in the general list. The list also includes Title P, the cost of the equipment of a ship, things like searchlights, electrical apparatus are a part of the ship but not provided with the vessel from the tractors, articles provided by the Government as utensils for the accomplishment of our end. All of these things are included in what we call Title B. In the last column are the costs of repairs. A searchlight may be completely wrecked. Such things have to be replaced from gunblast. They have to be completely renewed, a new one rather than attempt to repair the old one. It will cost \$160,000 a year to take care of the engineering work on each battleship in service.

If you keep them anchored, you will not need that. It will require \$22,960 to supply them with their clean ordinary supplies incident to commission. That is how we arrived at it. The same explanation applies to the cost of each of the other classes of vessels.

Mr. KELLEY. Having in mind what has been ordered for ships that are not to be built and what has been accepted or probably have to be accepted, would you say that there is quite a large quantity of material that you could use?

Admiral ROBISON. I hope so.

Mr. KELLEY. At scrap prices that would be included in the estimate of \$160,000 per battleship. I am leaving out your improvements and only speaking of the ordinary affairs. You have that in inventory at its scrapped value. There is probably a great deal of it; that would make quite a difference in your estimate. Would it not?

Admiral ROBISON. I have not yet taken that into account. Mr. Chairman. About the largest item of considerable value is the straight copper piping. Perhaps I can get a quantity of condenser tubes that I could use and fit into other vessels next year nearly \$1,000,000 worth of condenser tubes that I have now, and probably later on if the boiler tubes have not been bent to fit the special type of boiler that is required for the vessels I could cut off enough of the length of them so that I can use them in some of the boilers that are now on hand. I can decrease the appropriation charges. I do not know.

Mr. KELLEY. It would seem that you would have a large quantity of fine material.

Admiral ROBISON. Yes, sir. The taking of the inventory is in hand. I have not the report from a single locality. It is a month ago.

Mr. KELLEY. You have spent already over \$300,000,000, yet you have Admiral Taylor?

Admiral ROBISON. Yes, sir; we have spent about \$360,000,000.

Mr. KELLEY. And Ordnance another \$100,000,000. There is of course the machinery end of it, which would yield the largest scrap value return?

miral ROBISON. There is one ship from which I could now obtain a complete spare propelling unit for a first-class battleship.

. KELLEY. That is fine.

miral ROBISON. But I have not the battleship to put it in.

. KELLEY. You will not need that this year; but that is only a little, perhaps, of the machinery that you will have on hand or you will really need. You can not foresee, of course, for next

year if your appropriation run about 60-40 as between material and labor?

miral ROBISON. A little bit different from that. I would invite attention to the first sheet of the booklet of expenditure charts, and that is an integral of what is happening to the appropriation as compared to last year. The expenditures of last year are shown in sheet A, and the actual expenditures for this year are shown in sheet B. That is by months.

. KELLEY. It looks like you had a pretty good hold on the situation.

miral ROBISON. I do not intend that there shall be any deficit. In sheet B you will note that the material—all the expenditures on the first part of sheet B are for material—has been repeatedly in excess of what it was last year. We have accomplished a decrease in our monthly expenditures in excess of a million dollars, as shown on the first sheet. We have materially increased our service to the fleet.

. KELLEY. That has been by extra care during the year and, I suppose, some reduction in price.

miral ROBISON. I am not talking about quantities; I am talking about costs. We are actually putting as many dollars into the fleet as we did a year ago and we are spending \$1,100,000 a month less on the whole establishment, shore and fleet.

. KELLEY. That can not be, can it?

miral ROBISON. That, fortunately, is the exact truth. This will show you in it. Take Sheet C of the Booklet of Expenditure Charts and you can see what has happened to the shore expenditures. We are spending approximately only three-fifths as much as it was last year at the shore stations. Take Sheet D, and compare this year with last year—that is, compare the yellow with the blue—and you will see that while several times last year we got up to \$2,000,000 a month at the shore stations we are repeatedly this year falling below \$1,000,000 a month. That is where the \$1,000,000 comes.

you will note Sheet E you will find that the cost is \$3.50 to every dollar's worth of material on the ships, if you put it on at the yards. That is the ratio. It costs us \$3.50 to put a dollar's worth of material on a ship, if the labor is performed at the navy yards, but if we put the material on the ship and let the ship's force do the work, it costs \$1 instead of \$3.50. That is where we are making headway, because the ship's forces are doing a larger proportion of their own maintenance work. The fleet is much more self-maintaining in that respect.

. KELLEY. That is what brings your labor and material a little closer together. If you do not have to pay civilians, but can have the work done on shipboard, it brings the labor cost and the material cost closer together?

Admiral ROBISON. Yes, sir.

Mr. FRENCH. Do you do that work on the ship itself, or is it in connection with one of those tenders?

Admiral ROBISON. It is done on board the ship itself, but we repair ships that are used, too. We have the repair ships *Pr* and *Vestal*.

Mr. KELLEY. Taking your appropriation for ships as a whole, would it divide as between labor and material?

Admiral ROBISON. I do not think I have that figure.

Mr. KELLEY. You have stated the situation.

Admiral ROBISON. I will have to make a calculation in order to know.

Mr. KELLEY. We are speaking now of the ships.

Admiral ROBISON. Sheet F shows what we have ashore. We at present spending \$517,500 for labor and \$192,600 for material ashore per month. To find the total material charge, to that be added the material for the fleet, which for seven months averaged about \$525,000. We will, therefore, have 517,500 to that as the ratio.

Mr. KELLEY. That is not far from 40 to 60.

Admiral ROBISON. It is about 5 to 7. To the material that now charging to ourselves, should be added the value of material that we are using. I have not an exact record of material, I know, for instance, that we have used over \$500,000 worth of steel and a lot of belting. We used two carloads of belting, not cost us a cent, and I know that we used \$3,618,382 worth of various machine tools. We have not done all of it this year since we got hold of it at the beginning of the last fiscal year.

The salvaged material that we are now using amounts to a large figure. If you are considering our present expenditures, expecting that the newly recovered salvaged material will take care of our future expenditures, I do not think it will be quite safe, but the salvaged material is becoming rather scarce, and we will be able to use anything like as much in the future as we have used in the past because there will be so much less available.

Mr. FRENCH. A good deal of this material from the war was turned up to you at very high prices, was it not?

Admiral ROBISON. Some of it, yes; and some of it I have turned up for nothing. There was a law passed last year that enabled a reduction of the war stocks to current market prices. That cut down the price of condenser tubes, for instance, from 37 cents to 19 cents a pound, or it practically cut that price in two. Copper cut from 11 cents to 11 cents, or less than half the former price. That makes a big difference, and we are no longer called upon to pay high prices for material on hand, but we can obtain it at market prices.

Mr. KELLEY. As to this other material, of course, I know, I cannot tell how much of it you can use, but it will be a very small quantity, will it not?

Admiral ROBISON. This year we used \$827,387.63 worth of material in the first six months.

MATERIAL ON HAND.

KELLEY. You have pretty nearly all of the machinery ordered on 14 ships, have you not?

Admiral ROBISON. Yes, sir.

KELLEY. And it is well along under construction?

Admiral ROBISON. Much of it.

KELLEY. And that which is not set up in machines is pretty fabricated?

Admiral ROBISON. If I could get authority to put the machinery ordered for the *Washington* on to one of our older battleships, it be done under the law and under the treaty, too. It would increase the power of the ship, but it would make her a more modern and better ship. To do that would cost Admiral Taylor something over \$1,000,000, and it would cost me well over a million dollars; but, of course, we do not expect to get those two million dollars this year. I desire to take that machinery and place it in the ships.

KELLEY. I was speaking more particularly of the material that is on hand fabricated, and which could be used for repairs, parts, and that kind of thing, in connection with the ships that are in existence. You will have to scrap those ships and will not establish a scrapping value, and the price that the Navy would put on the scrapped material is what anybody else would pay for it. Do you not think so, Mr. Secretary?

Secretary DENBY. You mean if we used the scrapped stuff that has already been paid for?

KELLEY. If you have the material in a ship that you are not to finish, and can take it out and use it for repair purposes, that material will have a scrap value that will have to be determined. I do not know how you will determine it, but the situation would be the same when Admiral Robison bought material for repairing engines. In that instance, he would buy it at the scrap price.

Admiral ROBISON. The condenser tubes you could probably sell for more than 9 cents. We have a lot of defective tubes in stock.

KELLEY. How much would you need?

Admiral ROBISON. We will need a million dollars worth of them this year, but I do not know how many we can get out of those ships.

KELLEY. What about electrical instruments and things of that sort?

Admiral ROBISON. Some of them I can probably use, but I do not know.

As soon as the call for this limitation conference went out I ordered not to make any more contracts for materials for new shipbuilding.

KELLEY. That was a wise thing.

Admiral ROBISON. We have no contracts made for the boilers here, the boilers were not ordered for four of these ships, and a great many other materials were not ordered. That will serve to decrease the amount of materials available for our use. It will probably cost this appropriation a little, but I do not think the Government will suffer.

KELLEY. You would not want to hazard a guess as to what it would save on that account?

Admiral ROBISON. Yes, sir; I can guess. I guess that I save \$500,000 next year from that material.

Mr. KELLEY. Not more than that?

Admiral ROBISON. That is my guess.

Mr. KELLEY. That would be a very safe guess.

Admiral ROBISON. No, sir; that is my guess. The conditions are not all ordered. As you see, this guess is made right and it may be radically too low or radically too great.

Mr. KELLEY. I am just trying to visualize those ship machinery for the ships still under way, with boilers, and material of every kind and description ready to go into the ships.

Admiral ROBISON. If the boiler tubes are bent I do not know what to do with them.

Secretary DENBY. You want to find out how much of this would replace new material that otherwise would have to be replaced.

Mr. KELLEY. The admiral is asking \$9,000,000 for material to repair 18 battleships that we already have. He estimates about half of that \$9,000,000 represents the material. He is basing it, of course, upon the basis on which he has been going to buy the material for the Navy, and I was injecting this other estimate into it—that is, that he would have large quantities of the finest quality that can be sold to the Navy, or anybody wants it, at scrap prices. If we gave him the amount that he estimated, he would have more money than he would have had. A considerable part of this material could be used in the other ships.

Admiral ROBISON. If I have to buy that scrapped material and put it in storage, I would lose money.

Mr. FRENCH. You mean by that, if you bought the material used simply what you could use, and let the rest remain in storage?

Mr. KELLEY. The Navy will have the first call on it, and what it wants, no doubt. If I were the Secretary of the Navy, I would try to arrange it that way.

Secretary DENBY. I presume that that is a matter of so much indefiniteness that it will be difficult to make more than the guess he has made.

Admiral ROBISON. If you simply authorized the Navy to use such material as it needed and required no charge at all for it, I think it would be better. The material has already been taken out of the appropriation, "Increase of the Navy."

RADIO SHORE STATIONS.

Mr. KELLEY. What is the rest of the estimate made for?

Admiral ROBISON. There are a good many items. One is radio, radio shore stations. I have included that on board ships in the ship expense. Radio shore stations are the largest expenditure.

Mr. KELLEY. How much is that?

Admiral ROBISON. That depends.

Mr. KELLEY. How much does it figure out?

Admiral ROBISON. I have figured it at \$3,782,510, but that includes \$960,150 of expenditures that are debatable. The urgent and immediate necessity for the \$960,150 does not exist, but it is desirable.

will save the Government money in the long run to provide it. I know how much more a dollar is worth to-day than the dollar had a half or two dollars that it will cost you next year. That is up to you to decide. The radio expenditures that are to-day necessary amount to an urgent amount to \$2,822,360. That is for next year.

MR. ELLEY. Is that just for repairs?

MR. ROBISON. No, sir; that covers repairs, improvements, maintenance, and operation. That represents all of those expenditures that are chargeable to my appropriation.

MR. ELLEY. You do not pay for the men?

MR. ROBISON. I do not pay for the men. I pay for all the buildings, for the grounds, for the buildings, for the power, for the fuel, for the renewals, and for the upkeep.

MR. ELLEY. How much of this is for entirely new construction?

MR. ROBISON. Not much. If you will look on the next to the last of the Booklet of Expenditure Charts, you will see there the appropriations and expenditures for last year and this year and the estimate for next year for maintenance, improvements, and repairs. That is for shore radio and for shore radio compass stations.

The last sheet shows the expenditures on board ship. We have estimated \$1,268,160 for the maintenance of the shore stations.

As to the expenditures for improvements and alterations I have cut since the bill was prepared by eliminating some items. We have estimated for the Atlantic section shore stations \$190,500 for urgent repairs, and \$370,000 for work that is necessary to be done.

In the Pacific section we have estimated \$369,000 worth of improvements, and \$293,300 worth that are necessary, the total being \$1,222,800. To maintain the radio service of the stations the estimate is \$1,268,160. For the radio compass stations the total is \$214,500, with \$68,400 for maintenance. The expenditures for land and research work, which is saving us enormous money, is estimated to cost us \$48,500 next year.

MR. ELLEY. How much more are you estimating for next year? How much are you going to spend this year?

MR. ROBISON. It is less.

MR. ELLEY. It was how much last year?

MR. ROBISON. This year it is \$4,117,728.

MR. ELLEY. How much have you spent up to date?

MR. ROBISON. A little over half of it. We have additional appropriations set for about one-fourth of it, and I think between 75 and 80 per cent of it is either spent or obligated. For the year 1921 the expenditures were \$5,343,304.

MR. ELLEY. This radio business is quite expensive.

MR. ROBISON. We can not do something for nothing. We are getting that better than anybody else, I think.

MR. ELLEY. This does not involve any new stations?

MR. ROBISON. That \$2,822,000 estimate, I believe, involves 15 subordinate stations.

MR. ELLEY. This sheet shows that the improvements, maintenance, and alterations of established stations on shore are in excess of what is needed for 1922.

Admiral ROBISON. You will note that although this graph made up that way, the amount I have requested is amount appropriated for the current year. You substitute \$1,222,800 for \$1,844,400.

SAMOA RADIO STATION.

CONSTRUCTION OF STEEL TOWERS, ETC.

Mr. KELLEY. You might give us a little more detailed tion about the item of \$126,000 for Samoa.

Admiral ROBISON. Two 150-foot steel towers will cost \$126,000. The present towers are of wood, with lattice work, erected in 1903. A 30-kilowatt station was originally established. The steel towers will be permanent. It has been definitely determined that the station can communicate satisfactorily with the Hawaiian Islands.

The station is a permanent one and permanent towers are required. The present ones are liable to fall down. It is the only system of communication with that part of the world, and there is no native cable communication. Another item is a duplicate 30-kilowatt arc converter, to be installed, \$15,000. This is to insure the continuous operation of this isolated station. The radio station itself is not in a part of the island that is inhabited by white people and there will be required some quarters. No quarters are provided for the officer in charge. He is in charge of the district, or island, and the operators or enlisted men have no other places to live.

Mr. KELLEY. That amounts to about how much?

Admiral ROBISON. That will cost \$19,500. There are miscellaneous items which have not been listed amounting to \$1,500. I have provided for miscellaneous expenditures that it is impracticable to foresee. It is in part a contingent expense. These people are on call every moment.

Mr. KELLEY. You have authority to build quarters?

Admiral ROBISON. Yes, sir. That \$126,000 gives the officer in charge complete responsibility for all expenditure in connection with the radio shore station.

HAWAIIAN ISLANDS RADIO STATION.

ERECTON OF STEEL TOWERS, ETC.

Mr. KELLEY. Give us the details of the \$295,000 for the Hawaiian Islands.

Admiral ROBISON. As you know, this is the center of the Pacific work. I wish to erect two additional 600-foot towers to insure satisfactory service with Cavite, so as to handle the volume of traffic with the Philippines without delay. We have had a great increase in our transpacific traffic; some of it is due to the fact that the cables have broken down from time to time. The Limitation of Armament Conference reports we have received from the radio, the press reports, and I am informed that the only authentic reports that were received in China were by the only way in which the whole truth could be gotten to (

the ground system, \$10,000; new loading coil, \$10,000. Want the details and the reasons for each of them?

ALLEY. No; give the sums.

MR. ROBISON. To erect concrete power house at Heeia, construct roads to station site, \$3,000; construct communication line from the remote control and receiving station at Wailupe to the high-power transmitting stations at Pearl and Heeia, \$60,000. This will reduce expenditures and avoid waste. Fifty thousand dollars for advance radio stations at various points in the Hawaiian Islands, \$10,000 for miscellaneous items is impracticable to foresee. That makes \$295,000 for that end, is, perhaps, our most important link in the transpacific

POINT ISABEL, TEX., STATION.

ERECTION OF TOWERS.

ALLEY. Give us the details as to Point Isabel, Tex., \$300,000.

MR. ROBISON. Point Isabel, as you know, is right at the mouth of the Rio Grande. The necessity for this station is that of main-continuous American communication with the Panama Colon. Likewise it is the station we are depending upon to communicate with the smaller vessels not equipped with the high-powered transmitters. Expensive radio equipment, when the vessels are in the Caribbean or in the lower part of the Gulf of Mexico. Point Isabel is a relay point between San Diego and Darien, and in order that that station work properly a lot of money will have to be expended. It will cost \$300,000, and the money will be used in erecting towers, which are required to transmit messages for considerable distances. It is one of the coastal stations, but it is now only a small radius and for sending messages to vessels that are in relatively close proximity. We have got to be able to talk with them, and the reason for bringing the communication near the mouth of the Rio Grande is because it is the closest place to Panama. American, and I do not think we want that radio tower anywhere. The place is rather difficult of access.

ALLEY. Are any quarters included?

MR. ROBISON. \$500 is included for furniture, but that is all.

ALLEY. There are no quarters included, and it is mostly for the towers and the power?

MR. ROBISON. Two masts, the antenna and the power plant. No big cable bills to pay for messages sent across the Pacific. You have any bills at all they are practically nothing. We turn the Treasury as miscellaneous receipts several thousand dollars every year aside from the work we are doing for other departments of the Government. This is, in part, an investment. I know that Captain Bryant has made the idea quite clear, but I am not to determine the operation of it but to make it so operate. It is an absolute necessity. If you are going to operate with your ships at sea you have got to have it, and if you do not do it properly you do not want to duplicate it; that is, you do not want a naval radio station, an Army radio station, an Air Department radio station, and a Post Office radio station, and so on. The Navy has one and it is doing the radio work for

all of the Government departments along the coastal zone. We are sending by radio communications that are delivered all the way up and down the Pacific coast. Our telegraph bill is cut down for transcontinental work and you have seen the effect of it in giving the amounts expended. We are not spending as much on telegraph bills to-day as we used to spend.

Mr. KELLEY. I wish that were so.

Admiral ROBISON. I may have been misinformed and you are a man who provides the funds. But I know you are not spending anything like as much as you would if you had to pay for the service for the messages that are being sent across the country by radio. My business is to furnish the service.

Mr. KELLEY. You want \$2,822,360?

Admiral ROBISON. Yes, sir.

GREAT LAKES RADIO STATION.

Mr. KELLEY. What are the other items in this?

Secretary DENBY. Has that been analyzed as to interior?

Admiral ROBISON. There are no interior stations.

Secretary DENBY. How about the Great Lakes?

Admiral ROBISON. We have radio-compass stations at Lakes, but they are not of much use to the Navy, and as a result one will pay the cost of running them I will turn them over.

Mr. KELLEY. That is a rather negligible sum?

Admiral ROBISON. Yes.

Mr. KELLEY. The items you have been giving include heavy replacements.

Admiral ROBISON. They include some improvements and improvements, new steel masts instead of wooden masts.

Mr. KELLEY. Is it imperative that these replacements be made this coming year?

Admiral ROBISON. I would not ask for them unless I felt them to be immediately and really necessary.

Mr. KELLEY. But sometimes officers do ask for things that are really imperative. It is like painting a house; you can postpone it.

Admiral ROBISON. But I do not want these masts. We have had two masts fall down this winter and I do not

RENEWALS TO INDUSTRIAL YARD EQUIPMENT, MAINTENANCE OF EQUIPMENT AT MILITARY STATIONS, ETC.

Mr. KELLEY. Take the next item.

Admiral ROBISON. Major renewals of industrial yard equipment, \$200,000; maintenance of equipment at military stations, \$200,000; repairs to equipment in store, \$300,000; models, tests, and experiments, \$150,000. I have labeled as contingent a figure of \$50,000 and I have an item of cost of commissioning vessels—equipment we put aboard them—\$50,000. That constitutes a contingent in the ordinary sense of the word. It is to cover excesses in one or the other of these particular items mentioned, and all other items of the appropriation, except the amounts I have given, which may be less than the amounts that will be needed in some cases. I am going to try to give you the figures I have given, but I do not believe I will be able to

glad to furnish you with the facts upon which I base that.

ELLEY. Is that all?

al ROBISON. No; that is not quite all. That is a total of 00.

ELLEY. That is the total of the last items you have men-

al ROBISON. Yes, sir.

ELLEY. What else?

EXPERIMENT STATION.

al ROBISON. Experiment station, \$82,000, and that is in addition to the special appropriation you have made for experiment station. The labor force there is paid out of the appropriation for the station and the materials used there, technical and clerical force is paid out of the engineering station itself, and the amount of the "engineering" expense on of the experiment station is \$82,000. We have in addition an item of \$665,312.80.

ELLEY. What is that?

PAY OF CLASSIFIED FORCE.

(See p. 541.)

al ROBISON. Classified force at nonindustrial yards paid for engineering appropriations and for inspection forces.

ELLEY. What else?

al ROBISON. That is all. There are a lot of other items I left in but I have left them all out, and I have done it deliberately in order to arrive at a figure that is as low a figure as it is to give, in my opinion, without providing for any improvement anywhere.

ELLEY. You do not mean quite that.

al ROBISON. I almost mean that.

ELLEY. Because there is \$1,000,000 for radio improvements.

al ROBISON. Well, where I have to make a change and have to make a replacement, any way, I have included the change or replacement, but I have made no change that was immediately demanded. I have got to put up two masts, that is, whether they be steel or wooden masts. This is the item of improvement that I have included in my estimates.

ELLEY. Then these items, including the radio, amount to 72.80, plus what you have for the ships?

al ROBISON. Yes; plus the amount I have for the ships, 35.

ELLEY. And you are asking for about \$14,000,000?

al ROBISON. \$14,559,837.80.

ELLEY. As to the classified service, how much of a cut have you under the current year?

al ROBISON. Last year we had 1,089 at yards while at home we have 978; 44 of them are to be paid for next year under Bureau of Aeronautics, so that gives us 934, and that is as of 1st of March.

Mr. KELLEY. All of your "Increase of the Navy" c is paid for out of that fund?

Admiral ROBISON. That is not all, as I recall it; that is navy yards.

Mr. KELLEY. As I say, the "Increase of the Navy" service is paid for out of this fund?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. I think the law requires you to charge it here.

Admiral ROBISON. It does.

Mr. KELLEY. So the \$665,312 is the whole thing and we reduce the limitations we have in the bill, from \$2,500,000. we allowed you to spend last year, to—

Admiral ROBISON (interposing). The \$665,312 covers classified force not at industrial yards, we are spending at at a very decreased rate; including classified force at yards we are spending at present at the rate of \$1,944,240.19.

Mr. KELLEY. And you are making a cut to \$665,000 for year?

Admiral ROBISON. No; the \$665,000 does not represent all clerical force. The clerical force at the yards is charged work on ships as overhead expense.

Mr. KELLEY. I thought the law required you to charge all classified service to this appropriation.

Admiral ROBISON. It does; but I have it charged—

Mr. KELLEY (interposing). Some of this is in these ought to have this classified service altogether.

Admiral ROBISON. Well, I have some more of this, cover the classified service rather completely.

Mr. KELLEY. Let us have the full amount for it.

Admiral ROBISON. We now have employed in the B technical employees and the annual expense is \$179.3 now have employed at navy yards and stations, exc bureau well, some of them are going to be charged to and do you want me to exclude those who are going to be aeronautics?

Mr. KELLEY. No; let us have everything that is to this fund next year.

Admiral ROBISON. Nine hundred and thirty-four, compensation of \$1,684,030.77. We have 94 clerks bureau.

Mr. KELLEY. That is in another place.

Admiral ROBISON. That is in addition to the technical I only gave you the technical employees at the bureau not given you the clerks who have been paid under the bill.

Mr. KELLEY. We do not want that; we just want what out of this fund.

Admiral ROBISON. We have transferred to the Bureau of Aeronautics and to the Secretary's office certain clerks included in the figures we are submitting.

Mr. KELLEY. \$1,863,335.95 is the sum total of service paid out of this appropriation?

Admiral ROBISON. That is it.

ELLEY. That is almost exactly three times what it was in

al ROBISON. Yes, sir; and in that connection——

ELLEY (interposing). Can you not help us a little on that?

DECREASED USE OF FUEL OIL.

al ROBISON. Yes, sir, and I would like to give you some
ion. The commander in chief of the Asiatic Fleet sent in—
ceived it about three days ago—a letter from the commander
estroyer squadron out there reporting that the destroyer
had decreased the use of fuel oil 49.8 per cent at anchor and
cent underway.

ELLEY. Who made that report?

al ROBISON. That comes from Asia; Admiral Strauss for-
and it is from Capt. Willis McDowell, and I would like to
it he ascribes that to.

ELLEY. How he did that?

al ROBISON. Yes. It is believed that these gratifying re-
due to the policy of engineering officers exacting compliance
Bureau of Engineering's instructions regarding methods of
1, routine inspections, and tests. It is believed that the
ons contained in the pamphlets dealing with fuel-burning
on, distillation, and boilers have been most important in
3 this increase in economy. That is what I am using these

ELLEY. To force compliance with your instructions?

al ROBISON. No; but to make the instructions of such mani-
e as to demand compliance with them. I have these men
; information, collating it, pointing out improper methods
ion and of maintenance, and emphasizing the best methods
ion and maintenance until I feel sure that if I can keep them
work—it will take me, perhaps, two years—I will have com-
manual of engineering instructions that will be a model for
l.

ELLEY. How many men are you using for that?

al ROBISON. I have every last mother's son working on that
7, and I have about 10 of them working on it solely; but every
ing something; every officer I can get hold of is doing some-
h it, and I glean information from the log of every ship.

ELLEY. Do you think that Admiral Strauss's division was
e wasteful than any other division until they began putting
rmation into force?

al ROBISON. My information leads me to think it was not.

ELLEY. What is the relation of the oil used under way to the
in port?

al ROBISON. About one-half, I think.

ELLEY. That would mean a tremendous sum of money in

al ROBISON. We sent from the Pacific to the Atlantic 11
they were in two lots—destroyers. They had been trained

One of them on the trip from Colon to Charleston, S. C.,
36 gallons of fuel oil. Another ship, exactly like it, except
tion of maintenance, wear and tear, and personnel, used

92,451 gallons. That is 80 per cent difference. One of them with enough fuel to fight and come back, and the other could not.

Mr. BYRNES. What is the explanation, personnel, or

Admiral ROBISON. These ships were built in the same way. They were sister ships in every particular, except personnel, not the personnel on board, but the personnel that had been on board in the past. It was the condition of the machinery. Gentleman, we now have on hand on the vessels in this list that we will keep in if we have 65,000 men, an amount of work required in order to get the machinery on all of those ships in good operating condition is simply appalling. I can not reduce the amount of work one cent with the appropriation I have asked for, not

AMOUNT NEEDED TO BE EXPENDED ON MACHINERY OF SHIPS, 1922.

Mr. KELLEY. Do you mean to say that the destroyers are in that condition?

Admiral ROBISON. I do not.

Mr. KELLEY. In good condition?

Admiral ROBISON. Generally speaking; yes, sir. There are 1,000 that I know of that has to be spent on the machinery of the Navy to make them fit for action. How much more, I do not know. The ships to be kept in condition next year, the ones I have seen, starts off with 12 battleships. You have to get those ships \$5,955,053 worth of work right now.

Mr. KELLEY. That would be \$600,000 a ship.

Admiral ROBISON. That includes besides the 12 battleships on this list that is headed with 12 battleships. A repairof the various items by ships.

Mr. KELLEY. You gave us the unit cost, by the way?

Admiral ROBISON. Yes, sir. That did not include anything. I gave you the figure that is necessary to keep the ships further behind or I gave you the figure that will enable us to maintain our present rate of going behind or ahead, I do not know what we are doing. We have now on hand this amount of work to be done before the machinery of the ships is ready to go. As the ship is fitted by design to perform in peace or in war, I do not ask for one cent for that purpose and I have not been authorized to ask for it.

Mr. KELLEY. What is the matter with the ships or the current repairs?

Admiral ROBISON. \$6,000,000 of current work that is that is one thing.

Mr. KELLEY. Do you mean that the limitation was put on you of \$300,000 a ship does not allow you to do that?

Admiral ROBISON. No, sir. I mean that the limitation has put on me of \$20,500,000 does not allow me to do that. I know you do not believe it; but I can not help it.

Mr. KELLEY. Then, if I were running the Navy I would not spend money on useful ships.

Admiral ROBISON. That is what we are trying to do. In 1914, 1915, 1916, and 1917 you gave us on an average 10,000 horsepower per annum to maintain our ships.

that we had, whether in commission or out of commission, active or inactive. I just included all of the power and all of the ships. This year you gave us \$1.75. You can not do the work at that rate.

. KELLEY. That is because you have the Navy filled up with old stuff that you picked up in the war, tankers, tugs, destroyers, cruisers, submarines, and destroyers, a lot of stuff that is simply junk, and as long as you spend money on that kind of junk you will not have it for these important ships. That is why we are going to fix it, if we can, so you will not spend the money on this junk but will spend it on valuable ships.

miral ROBISON. I want to do it. I might mention the most successful commercial ship operator in this country—I can not mention his name—spends for quadruple expansion engines \$19.96 per horsepower and for triple expansion engines \$16.17 per horsepower.

. KELLEY. Let us see where you spend your money.

miral ROBISON. I will explain that the expenditure for engineering is going more and more into the ships, more into the ships to-day than ever before. I am going to get just as much more there as I can. That is why I have more materials going on the ships than a year ago, spending \$1,000,000 a month less, as I stated a year ago.

EXPENDITURES FOR REPAIRS, 1922.

. KELLEY. You spent on all the battleships, first and second class, the whole business, \$730,000 for repairs. How much did you spend in your appropriation this year for repairs?

miral ROBISON. The total amount in my appropriation for this year was approximately \$1,700,000 per month, \$20,500,000.

. KELLEY. You had \$20,500,000 and you spent \$730,000 on these repairs?

miral ROBISON. In what time?

. KELLEY. Three months.

miral ROBISON. That is right.

. KELLEY. That is only \$730,000; you spent \$24,000 on armored cruisers; \$15,000 on cruisers of the first class; \$27,000 on cruisers of the second class; \$128,000 on cruisers of the third class; on destroyers you spent \$785,666.24; you spent \$172,765 on the submarines, that is all of the submarines; you spent a lot of money on the submarines?

miral ROBISON. I may have; I admit it.

. KELLEY. You spent for repairs alone on some of them \$5,000, on some of them \$2,900, and some of them \$1,724?

miral ROBISON. Putting in a new engine costs money.

. KELLEY. I know; but they are not any good after you get the engines. You spent \$121.016 on those little craft?

miral ROBISON. Yes, sir.

. KELLEY. Here are the Eagle boats, \$36,162.95. On the destroyers for torpedo boats, which, of course, you have to have, you spent \$106,000. On gunboats, \$44,867 in three months. On transports, \$12,953. On fuel ships, \$382,512. On mine sweepers, which are nothing but tugs, \$216,647, and in three months on repairs to armed yachts and patrol vessels, \$205,729. There are some

more tugs, tugs galore, \$200,685.78, and so on. I am not through with this situation of the first three months. You complain if you do not spend the money on the important s

Admiral ROBISON. No, sir.

Mr. KELLEY. Of course, you were not responsible for the ships' commission; you had to repair the ships they were using?

Admiral ROBISON. I have nothing to say as to that, of c

Mr. KELLEY. That is what we are trying to do—tryi to this thing better. These are hard times in the country. wants you to have the money that is necessary to repair in good shape the ships that you would use if you were in We are anxious to do that.

Admiral ROBISON. See the list that I gave you.

Mr. KELLEY. Yes, sir. Of course, we have all the mind. I have been impressed the last five or six y rs more all the time that the Navy was just swamping i trying to keep up stuff which was not any good. If y other officers, in conjunction with the Secretary and the Secretary, would just make one grand slaughtering of tas that does not contribute to the national defense, stop r stop burning oil on it, and stop putting engines in it, the country be perfectly willing to support the fighting part of the Navy, and would not be a particle of difficulty about the appropriat

Admiral ROBISON. I believe you.

Mr. KELLEY. I believe that if we can all work that out this year, we will have saved the taxpayers on the one ha the same time we will have given the Navy everythin t sary to make it effective. We want to give you the money for repairs, but not until after you have taken out wood, the junk, and the old stuff that really does not c much to the national defense. You can see how it runs into u sums of money.

Admiral ROBISON. It is worth while that you should list here; that is something that is an order to me.

Mr. KELLEY. That is all right. You have given us i for making up your appropriation that could possibly have given it by the unit, and when we determine in c the Secretary just what ships we will appropriate for—that does not mean that these ships will have to be run, but n mates the same your table will give us the necessary data to the money.

Admiral ROBISON. I should like to invite your i fact that on the ships on this list that are shown in i there are now on hand \$1,113,500 worth of repairs to ac on the machinery. There are \$4,841,553 worth of ai have been ordered.

Mr. KELLEY. I suppose that human nature ru ty and that every manufacturer runs up against the experts in charge of the various machines in the di r will suggest to him repairs and improvements that n factory if the manufacturer were to carry them all c l.

Secretary DENBY. I recall distinctly that an order t c i time ago that nothing whatever but military repairs on these ships.

Mr. KELLEY. That is right.

Secretary DENBY. We are trying our best to do exactly what you are talking about. It all passes through the bureau, and if the repair is deemed a military repair it is disapproved:

Mr. KELLEY. When the admiral brings in a paper and says I estimate that, that does not signify anything?

Admiral ROBISON. I do not do that.

Mr. KELLEY. What you do is put it up to him as being necessary?

Admiral ROBISON. No, sir. There is no order issued until it has gone over and studied.

Mr. KELLEY. The Secretary has to take your word for it?

Admiral ROBISON. I have never had a chance to make a recommendation to him that any repairs or alterations be authorized.

Mr. KELLEY. You make it to the Secretary, your immediate superior?

Admiral ROBISON. I have never made one to the Secretary.

Mr. KELLEY. Where does he get this information?

Admiral ROBISON. There is never one job authorized directly without the recommendation of any bureau chief. I know that every one of our recommendations in that line is revised prior—they go to the Chief of Operations and they have been radically reduced.

Mr. KELLEY. I do not know the machinery. The Chief of Operations is in control of the fleet.

Admiral ROBISON. The result of that is that the amount of authorized alterations has been cut down to include what has been approved by the bureaus concerned in the past and what have been passed on by the military officers as essential for military reasons on the one hand.

They are not being done and they are probably not going to be done until they have to be done on account of war. When war comes, these ships will not be ready until the \$6,000,000 has been appropriated.

That is all there is to it.

ENGINEERING COST PER HORSEPOWER.

Secretary DENBY. Admiral, you did not complete your statement as to the relative cost per horsepower in a well-conducted merchant marine establishment as against the cost in the Navy.

Admiral ROBISON. There is a well-known ship company that has 10,000-ton single-screw, quadruple expansion tanker of 2,900 horsepower, and the annual engineering cost of that vessel is \$19.96 per horsepower. That same company operates a twin-screw triple expansion tanker with an annual engineering cost of \$16.17 per horsepower. That is the most successful ship-operating concern in the United States. Those ships were having a high cost, because they were tankers and were being driven hard. They were operating mechanically at full power, and those costs are not correct for usual merchant service costs. The usual merchant-ship practice is to allow for horsepower per annum for repairs to their ships. In the steel navy where we have the heaviest and most massive machinery there the cost per horsepower is higher per annum than it is in the Navy.

Mr. KELLEY. But they run all the time.

Admiral ROBISON. No, sir; I wish they did, but they do not.

Mr. KELLEY. When they do not operate, they do not allow that

Admiral ROBISON. No, sir; but that is the cost just Their cost exceeds ours.

The CHAIRMAN. The movement of that machinery is n than the movement of a battleship.

Admiral ROBISON. That is the only way possible. We have lightest machinery in the world, and the most delicate That was the difference between a quadruple-expansion and a triple-expansion engine operating under similar conditions, one consumes 10 per cent more than the other. It was an improved machine and it consumes less fuel but its repairs cost more. We have the most efficient machinery in the world.

Mr. FRENCH. How does the efficiency compare there as to consumption, or is there any way by which you could compare them?

Admiral ROBISON. There is no ship in the world that has the same fuel-operating efficiency that we are getting from our latest ships.

The CHAIRMAN. That is due to the fact that you put in that is so much more expensive than the material that goes into other machinery. If your first cost were added to the cost of repairs it would more than offset the cost of maintaining that machinery. I know something about machinery.

Admiral ROBISON. Obviously, because if it were not that would be the commercial practice to use the type of machinery that we use.

Mr. FRENCH. How does your efficiency in the use of fuel compare with theirs?

Admiral ROBISON. That is what I am referring to.

Mr. KELLEY. You mean efficiency of the engine and crew. Do your engines, operating normally, use less fuel than commercial ships use?

Admiral ROBISON. Yes, sir. We are using less on these ships than they use on commercial ships. While our ships are operating with higher efficiency, as compared with the commercial ships, their machinery is so light and fragile, and it must be kept so clean, and you must put so much care upon it to prevent deterioration, that our maintenance costs must be high. That high cost by doing the work aboard ship with the crew. The men on shipboard do most of the work. A man who was a farmer two years ago is a mechanic to-day, and, really, we are maintaining our ships as they are being maintained.

Mr. KELLEY. Somebody made the estimate awhile ago that it would cost about \$12,000,000 for the ships of the Navy that are in commission and were just lying up at the docks that are burning oil in the boilers. If the efficiency that Admiral Robison is putting into effect with regard to the destroyers out there would be put throughout the Navy, it would reduce that cost from \$12,000,000 to \$6,000,000.

Admiral ROBISON. No, sir. It would, so far as the destroyers go, yes, sir; and that has been in operation at San Diego. The battleship Nevada six years ago used 241 tons of oil per hour in port, summer time, and now she uses 195 gallons per hour. There is an improvement in the efficiency due to operation in the ships. That may come from the improvement of the personnel, from improved apparatus supplied to the ships, or from the improvement in the machinery itself.

er engineering. It comes, I believe, from better training and supervision by the officers of the ships. The latest ships are much better. The *Tennessee* is using 115 gallons of oil per

ELLEY. We may want you to come up when we reach the station for fuel.

al ROBISON. I will come up.

PAY OF CLASSIFIED FORCE.

(See p. 533.)

ELLEY. Let us go back to the classified service. You ask \$665,212.06. How much in addition to that are you asking

al ROBISON. Nothing else. That is the classified force. Yours include some classified force I have already given you. If I look in the report of the Paymaster General, from which figures were obtained, you will note under "cost of commissaries" a considerable amount that is set aside for overhead.

ELLEY. On page 62 of the bill there is a limitation of \$100,000 for classified service. How much can we reduce that in the bill?

al ROBISON. You can reduce it to \$1,850,000. If you cut it down so that I have got to stop the collection of information, that will stop the possibilities for making improvements in operations.

ELLEY. We do not want to do anything that will reduce efficiency.

al ROBISON. If you cut down the number of the navy yards, that figure will fall automatically.

ELLEY. Of course you know as much as anybody about the Navy Department in regard to the navy yards. How would you say this could be cut by reason of what you know about the subject?

al ROBISON. I would not say anything. I do not know that closing any navy yards; do you?

ELLEY. No. If the navy yards were reduced in their activities, would that make some difference?

al ROBISON. No, sir; the cost of doing nothing is very great.

ELLEY. If you close down certain units—

al ROBISON (interposing). They are cutting them; but that will not affect the classified force. That affects the foremen or the petty forces. The classified force can not be cut down much by closing the yards, and that is really about all that the bill will gain you.

ELLEY. What do you mean by that?

al ROBISON. If you close a navy yard, your net gain will be the classified force of the yard.

ELLEY. You have the mechanics?

al ROBISON. No, sir; because you will have them at work doing work and are doing good work. It does not matter where they are in, because you will have to move them from one place to another.

ELLEY. You would not discharge any of them?

Admiral ROBISON. We are not doing any unnecessary work. Mr. KELLEY. But if you take all of those craft out of commission —

Admiral ROBISON (interposing). That appears in the de amount you have set aside already under these titles.

Mr. KELLEY. The classified service, you think, would be changed as long as the yards were not closed?

Admiral ROBISON. I am sending out letters telling them to but they do not seem to cut much.

Mr. KELLEY. They will not until you actually tell them to.

Admiral ROBISON. We will have to close yards before we make much difference in the number of the classified employees. Every time you close a navy yard it will save the Government about \$1,500 per day.

Mr. KELLEY. In the classified service?

Admiral ROBISON. I suppose so, taking all appropriations into consideration.

TOTAL NUMBER OF EMPLOYEES IN NAVY YARDS.

Mr. KELLEY. Who has the information as to the total number of employees in each navy yard?

Admiral ROBISON. The Assistant Secretary.

Mr. KELLEY. Colonel Roosevelt, will you put in Admiral's statement at this point a statement showing the number of employees in the navy yards, yard by yard, as of the last available date?

Colonel ROOSEVELT. I will do so.

Mr. KELLEY. I am referring to the classified employees.

Colonel ROOSEVELT. In the industrial yards?

Mr. KELLEY. Yes; in all the navy yards.

Secretary DENBY. Do you want that information for all stations in addition to the navy yards?

Mr. KELLEY. I suppose we had better have it complete. Then we will know the total number of civilian employees in the navy.

Colonel ROOSEVELT. We will get that statement up.

Mr. KELLEY. Put in a table that will illuminate the number of the civilian employees outside of the Navy Department who are paid for out of naval funds.

Colonel ROOSEVELT. That will be supplied.

NOTE. This table will appear at end of hearings.

NAVAL PETROLEUM RESERVES.

Admiral ROBISON. There is one item I would like to ask you and I have authority from the Secretary to ask about it, and this: In the purposes of the appropriation for Emergency needs, you would include specifically the care and preservation of petroleum reserves. That is something that has hitherto been in the Interior Department. You turned over to them in connection with those reserves, but it is not included in the appropriation for the Interior Department. I received notice from the Secretary Fall that it was decided that it should be included in the appropriation bill, because it is a naval activity that he performs for us. It is on the same principle of an activity performed

tment for another. The Secretary has designated me as the r to take charge of that work. If you put in a separate item, I would like to have \$100,000 authorized, because it may cost much; but if you do not put in a separate item and include it a purposes for which the "engineering" appropriation is made, old like you to add \$50,000 to the total sum, because that is I hope to limit it.

. FRENCH. I think that the admiral ought to submit the language s necessary in order to cover this matter. The Interior Department committee cut it out of that bill, feeling that it was a charge ought to be carried by the Navy.

miral ROBISON. The added item should read: "To provide for are, custody, and operation of the naval petroleum reserves."

. KELLEY. It was estimated for in another bill and was cut out ?

. FRENCH. We cut it out absolutely. The Interior Department, gh the Bureau of Mines, has offered to do the work. We did hallenge that, but we felt that the expense should be borne by epartment that receives the benefit.

. KELLEY. Why do you want \$100,000?

miral ROBISON. They are opening two reserves considerably. reserves that were in the ground were being drained by outside es, and it has become necessary in order to preserve them to) them out.

. KELLEY. What do you want with the \$100,000?

miral ROBISON. To allot to the Secretary of the Interior.

. KELLEY. What will he do with it?

miral ROBISON. I do not know.

. KELLEY. Who has the details of the \$100,000 estimate?

miral ROBISON. That would be under Secretary Fall. He has \$15,000 during the last four months. He is opening up another e, and I figure that next year he probably will spend something ess of \$50,000. It might be \$100,000.

. KELLEY. It is all for the employment of people?

miral ROBISON. It is all for people; yes, sir.

. KELLEY. Are they expert people or ordinary employees?

miral ROBISON. I have now one naval officer on the retired list, in Landis, who is employed, and I had calculated to dispense his services, because I did not think there was any use in our ag another man there. He is the only expert that I have had ing to do with.

. KELLEY. The Interior Department has made all the arrange- s for the help, but you do not know how much they require? do not know how many people they will employ?

miral ROBISON. No, sir.

. FRENCH. Probably I should say that the Admiral stated, when is talking off the record, that the Interior Department, through Bureau of Mines, is charged with the responsibility under the f gauging the oil as it comes out, and reporting that which should a royalty to the Government. Necessarily that work must pt up to date if the Government is going to receive the revenue t should receive from the royalties.

. KELLEY. I know about the purpose, but I want to know the er of men to be employed, and at what wages?

Mr. FRENCH. That depends upon the amount of oil.

Mr. KELLEY. Somebody has made an estimate covering a number of men at certain prices.

Admiral ROBISON. I do not know that an estimate of has been made.

Mr. KELLEY. How did you guess at the \$100,000?

Admiral ROBISON. I guessed at it because they had \$15 last four months.

Mr. KELLEY. What did they do with the \$15,000 they dr the past four months?

Admiral ROBISON. I do not know.

Mr. KELLEY. We are very much obliged to you for your

SATURDAY, MARCH 18,

BUREAU OF CONSTRUCTION AND REPAIR.

STATEMENTS OF REAR ADMIRAL DAVID W. TAYLOR, AND MR. HENRY C. BRUNNER, CHIEF CLERK

ALLOCATION OF ESTIMATES BY CLASSES FOR 1922.

Mr. KELLEY. We have with us this morning Admi Chief of the Bureau of Construction and Repair, and l Under the Bureau of Construction and Repair you have an appropriation for this current fiscal year of \$22,500,000 for the c tion and repair of vessels. How much do you estimate you next year?

Admiral TAYLOR. The estimate is \$20,000,000.

Mr. KELLEY. Have you the details of that?

Admiral TAYLOR. Yes, sir. That estimate was fr t from \$24,500,000, which was our real estimate. s expenditure on vessels in commission of \$14,200,000.

Mr. KELLEY. How is that divided by classes?

Admiral TAYLOR. For the battleships in full c estimate is a little over \$2,400,000; for flagships tne \$280,000; that is, for five flagships, independent of b t that are flagships. We figured at that time on four l but that has been reduced to three, for which the estimat For destroyers in full commission, the estimate is \$1,000,000.

Mr. KELLEY. How many destroyers did you figure on

Admiral TAYLOR. On 65 in full commission. For the estimate is \$288,000.

Mr. KELLEY. The cost is more for tenders than for d

Admiral TAYLOR. Yes, sir; the tenders are much li much more expensive ships than the destroyers.

Mr. KELLEY. There are only 5 or 6 of them.

Admiral TAYLOR. There are 8 of them, or we have 8 For s1 submarines, the estimate is \$1,300,000, and for tenders, the estimate is \$210,000. In addition to that, of submarine tenders at shore bases, and the estimate to about \$75,000. For 2 mine layers, the estimate

light mine layers, or those that were converted from destroyers, estimate is \$560,000. For 16 mine sweepers, the estimate is 000; for 2 aircraft tenders, the *Aroostook* and the *Wright*, which sent a new type of vessels, the estimate is \$85,000 for both. As for the *Wright*, we do not know what the estimate should be, but are sure that the cost will be about \$85,000 for the two. For 2 repair ships, the estimate is \$64,000; for 2 hospital ships, \$120,000; for 2 repair ships, \$60,000; 2 ammunition ships, \$80,000; 5 store ships, \$280,000; 18 oilers, \$640,000; 5 colliers, \$300,000; 13 transport vessels, \$700,000; a radio repair ship, \$40,000; 17 patrol boats, mostly gunboats, \$200,000; one survey ship, \$20,000; 2 Fish Commission ships, the *Fish Hawk* and *Albatross*, \$12,000; 12 special vessels, \$70,000; 30 fleet tugs, \$360,000; 60 harbor tugs, \$100,000; 25 Eagle boats, \$4,000 each, \$100,000; 45 subchasers, \$4,000 each, \$180,000; and 30 miscellaneous vessels amounting to about \$300,000. That makes the total for the vessels in commission about \$1,000,000, although that is not the exact amount.

For vessels in reduced commission, the estimates are as follows: for the experimental ship, either the *Michigan* or the *South Carolina*, \$100,000; the cruiser *Charleston*, \$20,000; 21 submarines, \$84,000; 10 mine sweepers, \$48,000; and 213 destroyers, \$2,550,000.

For vessels out of commission we figure, in round numbers, \$500,000.

KELLEY. Without any details?

ADMIRAL TAYLOR. Without any details. That makes the totals for vessels \$1,400,000, in round figures.

ALLOTMENTS FOR BATTLESHIPS.

KELLEY. What is the average for each battleship—\$150,000?

ADMIRAL TAYLOR. \$170,000 is the regular figure on each battleship.

KELLEY. You have 18 battleships?

ADMIRAL TAYLOR. \$170,000 is the proper figure on each battleship. We have arbitrarily reduced those estimates by 20 per cent, and the reduced figure is \$136,000.

KELLEY. You are asking \$2,400,000 for how many battleships?

ADMIRAL TAYLOR. That is about 18.

KELLEY. That would be about \$133,000.

ADMIRAL TAYLOR. \$136,000 on the 20 per cent basis.

KELLEY. You are taking 20 per cent off?

ADMIRAL TAYLOR. I want to explain that figure of \$170,000. Our estimates were arbitrarily cut 20 per cent, because our estimates were really \$24,500,000, and were arbitrarily cut to \$20,000,000; \$20,000,000 is what we really need in order to carry on the work properly, and we probably will have to let battleships go unrepaired to some extent. Those estimates were based on the operating plan at that time. They were submitted last September.

ALLOTMENT FOR CRUISERS.

KELLEY. Have you the names of the five flagships?

ADMIRAL TAYLOR. Yes, sir; the *Rochester*, the *Olympia*, the *Huron*, the *Connecticut*, or the *Seattle*, and the *Birmingham* or the *Columbia*.

KELLEY. The *Olympia* is not to be continued, is it?

Admiral TAYLOR. She was in the operating plan at that

Mr. KELLEY. If we reduce that number to four, and if it is taken out, what would that take off in the way of estimate? much would that reduce the estimate?

Admiral TAYLOR. With the *Olympia* out, it would reduce it \$80,000.

Mr. KELLEY. You have \$280,000 for the five, and the *Columbia* is one of the largest of them?

Admiral TAYLOR. We have six, but I presume the *Columbia* she was included last September.

Mr. KELLEY. You would have four instead of six by *Olympia* out.

Admiral TAYLOR. It would make the estimate about \$

Mr. KELLEY. Now, the three cruisers are the three new

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Do you think you will need \$200,000 for year?

Admiral TAYLOR. They always need a great deal the first year. The first year after a vessel is in commission there are changes made, and we do not charge up to the cost of the ship anything that are necessary after it goes into commission. We do not charge up anything to the first cost of a ship after the ship is in commission.

Mr. KELLEY. You would not take off anything there?

Admiral TAYLOR. They are a new type of ship, and are to a great extent experimental. They are entirely new types in design and I expect that developments will require some expenditure upon them.

ALLOTMENT FOR DESTROYERS.

Mr. KELLEY. Suppose instead of having 65 destroyers in commission, you had 103: How much would that increase that

Admiral TAYLOR. Do you mean in full commission?

Mr. KELLEY. Yes.

Admiral TAYLOR. We figure that we should have \$20,000,000 for a destroyer in commission.

Mr. KELLEY. You have only \$1,000,000 down for 65.

Admiral TAYLOR. We arbitrarily reduced those along, and we did not suppose that we would be able to get 103 destroyers on four-fifths of what we needed for them. They were originally nearly \$25,000,000, and they had to be reduced.

Mr. KELLEY. Suppose you had 38 more destroyers?

Admiral TAYLOR. That would mean \$760,000.

Mr. KELLEY. We have 103 destroyers already in commission for business.

Admiral TAYLOR. I was going back to the question of

Mr. KELLEY. So you will need that for outfits

Admiral TAYLOR. Yes, sir; and we must allow for the money to send for maintenance.

Mr. KELLEY. If you have 103 destroyers in commission, you have to add \$760,000. Now, suppose you had all the destroyers out of commission, as the Secretary contemplates a number of them, or if you had them laid up and overhauled, greased, and painted, and laid away, what difference?

miral TAYLOR. There would still be some expense for them.

KELLEY. How much would it take out of the estimate for those reduced commission?

miral TAYLOR. We figured \$15,000 for reduced commission.

KELLEY. \$15,000 for each one?

miral TAYLOR. Yes, sir; because they are operating with a force.

KELLEY. Well, if they are out of commission entirely?

miral TAYLOR. If they are out of commission entirely, the expenses will be comparatively small the first year, except for ship's to look after them.

KELLEY. That is a rather small item coming out of "Pay of navy," is it not?

miral TAYLOR. No, sir; they come out of our appropriation.

KELLEY. How much would it amount to per destroyer?

miral TAYLOR. That alone would amount to about eleven or hundred dollars apiece, assuming that you had one ship keeper per destroyer. We have not had enough experience in that as you a fair estimate, but that would not be far off from what it be. A ship keeper works 365 days in the year, caring for three at \$3.28 per day, and three are required to cover a 24-hour day.

KELLEY. You would have 276 destroyers.

miral TAYLOR. No, sir; not as many as that. There would be

KELLEY. We have 278 altogether, and if you take out 103, it leave 175 out of commission.

miral TAYLOR. That would mean \$180,000 for ship keepers

KELLEY. What other expense would there be?

miral TAYLOR. The condition as to the ship would be the same you shut up your house and went away. A window might be in, a storm would come along, the roof might leak, and if we exceptionally bad weather, perhaps they would have to clean the off.

KELLEY. \$250,000 would cover it?

miral TAYLOR. Yes, sir.

KELLEY. Then, you could take off \$2,250,000 from your re-commission appropriation, if we laid up that many, and you add \$760,000 at the other place?

miral TAYLOR. Is that the way it figures out?

KELLEY. Is that right?

miral TAYLOR. Yes, sir.

ALLOTMENT FOR DESTROYER TENDERS.

KELLEY. Now, you figure on eight destroyer tenders, and on new basis suppose you figure on six destroyer tenders. You will 103 in commission, making 19 for each squadron and there be five squadrons. If you had five squadrons with 19 in each iron, that would take 95, and if you add eight for the Mediterranean service, it would make up the 103. They would require six rs. would they not?

miral TAYLOR. We put the tenders down at \$45,000. We are mixed up, because the figures which I have given you were to explain that \$20,000,000 estimate. Our estimate was arbi-

trarily cut, and I would rather have you figure on what we need when you attempt a reduction, because when you reduce it, it should be borne in mind that we have already reduced the estimate.

Mr. KELLEY. We can make that adjustment at the end. I mean the eight tenders before you made the cut?

AMANDA TAYLOR. The proper allowance for tenders, as well as mine-framing tenders experienced is \$40,000 each.

Mr. KELLEY. This \$288,000 is at the rate of \$36,000 apiece.

AMANDA TAYLOR. That was after the 80 per cent had been

Mr. KELLEY. Suppose we make the reduction wherever we can, and then at the end we adjust the 20 per cent at the end. We will not touch the total.

COMMITTEE ON SUBMARINE TENDERS.

AMANDA TAYLOR. If you will give me the new numbers I will figure.

Mr. KELLEY. If 80 submarines were kept in full commission, would the figure vary much?

AMANDA TAYLOR. Not appreciably, no, sir.

Mr. KELLEY. And 80 submarine tenders?

AMANDA TAYLOR. That changes it about \$100,000.

Mr. KELLEY. That would make \$100,000 more?

AMANDA TAYLOR. Yes, sir.

Mr. KELLEY. How many submarine tenders have they afloat?

AMANDA TAYLOR. Seven, sir.

Mr. KELLEY. Was this \$210,000 for seven? I think you are a little low, but the number appears to be

AMANDA TAYLOR. It is six and it was seven at the time of the report of submarine tenders, and the afloat.

Mr. KELLEY. Just leave your figures as they are and we will make the adjustment at the end you have made. You have \$210,000 for seven?

AMANDA TAYLOR. Yes, sir.

Mr. KELLEY. You speak about shore base?

AMANDA TAYLOR. There were seven, sir.

Mr. KELLEY. Where are they located?

AMANDA TAYLOR. At the headquarters of the Navy, Key West, Coco Solo, and

Mr. KELLEY. Have they spoken of five here?

AMANDA TAYLOR. They spoke of five vessels.

Mr. KELLEY. What is your figure for the

AMANDA TAYLOR. \$210,000.

Mr. KELLEY. What is the total you gave

AMANDA TAYLOR. The sum of \$270,000, or as

Mr. KELLEY. Is that correct?

AMANDA TAYLOR. Yes, sir. The six reduced 20 per cent.

Mr. KELLEY. Now, what is the number and the total?

AMANDA TAYLOR. Well, sir, you do?

niral TAYLOR. The first operating plan contemplated six at 10 and I reduced that \$38,000 each as I went along in order to be 20 per cent off.

KELLEY. Is this \$216,000 for seven?

niral TAYLOR. That was for six on the original list.

KELLEY. You originally had \$45,000 for seven, had you?

niral TAYLOR. No, sir; I originally had \$45,000 for six.

KELLEY. Which do they want you to provide for—six or seven?

niral TAYLOR. The revised list is seven, and I think you have it there.

KELLEY. That would be \$315,000 less one-fifth, so as to get all on the same basis?

niral TAYLOR. Yes, sir.

ALLOTMENT FOR MINE LAYERS.

KELLEY. That would be \$252,000 as I figure it. Shore base is \$75,000; 2 mine layers, the *Aroostook* and *Shawmut*, and 10 layers?

niral TAYLOR. Those are the light mine layers.

KELLEY. They reduced those to 10 when they discussed the matter with us.

niral TAYLOR. I have four.

KELLEY. You said 14.

niral TAYLOR. Fourteen in all, but that has been reduced to 10 in the list I have.

KELLEY. So the amount is not \$560,000, as you gave it before?

niral TAYLOR. That was for 14, the original estimate.

KELLEY. Let us reduce that to 10, just as they want it; how much will that be?

niral TAYLOR. That will take off \$160,000 on that basis.

ALLOTMENT FOR MINE SWEEPERS.

KELLEY. You have 16 mine sweepers and they ask for 10?

niral TAYLOR. Yes, sir.

KELLEY. How much will that take off of the \$190,000?

niral TAYLOR. \$40,000 if you allow \$15,000 per mine sweeper.

ALLOTMENT FOR AIRCRAFT TENDERS.

KELLEY. Two aircraft tenders?

niral TAYLOR. That is reduced to one.

KELLEY. How much will that be?

niral TAYLOR. \$55,000.

KELLEY. It takes \$55,000 off?

niral TAYLOR. No; it remains \$55,000.

KELLEY. Keep to your percentages or we will not be able to make an adjustment at the end; we will not be able to make an adjustment if you try to correct that 20 per cent as you go along on one and not on others, and when we try to correct it at the end we will be at sea.

niral TAYLOR. That is true.

KELLEY. So do not do it, but keep to your figures and we will make an adjustment at the end.

Admiral TAYLOR. I will try to do so.

Mr. FRENCH. Are these two tenders of different sizes and have a different cost for repair?

Admiral TAYLOR. Yes, sir.

Mr. FRENCH. One \$55,000 and the other \$30,000?

Admiral TAYLOR. Yes, sir; but the trouble is I took off on at \$55,000 and did not take 20 per cent off.

Mr. KELLEY. Repair ships?

Admiral TAYLOR. There is the aircraft carrier which I did you in the original statement. The *Langley* is going to be sioned.

Mr. KELLEY. The two aircraft tenders would just ab the aircraft carrier?

Admiral TAYLOR. It will be a little more than for the put her at \$60,000.

Mr. KELLEY. That adds \$60,000?

Admiral TAYLOR. Yes, sir.

ALLOTMENT FOR REPAIR, AMMUNITION, AND STORE SHIPS.

Mr. KELLEY. Two repair ships?

Admiral TAYLOR. That is reduced to one.

Mr. KELLEY. Well, they asked for two, but we will let

Admiral TAYLOR. We have not quite the same list.

Mr. KELLEY. We have had every kind of a list and I am t adjust this thing. We have been trying to get a list of they would keep in commission for 65,000 men, but we able to get it yet. Two hospital ships, \$120,000; two u ships, \$60,000; two ammunition ships and five store struck all of those off but three when we went over the the *Arctic*, and the *Rappahannock*.

Admiral TAYLOR. That would be three-fifths.

Mr. KELLEY. That would be \$125,000 off?

Admiral TAYLOR. Yes, sir.

ALLOTMENT FOR FUEL SHIPS.

Mr. KELLEY. Eighteen oilers, but they are ask for oilers. You probably would not want that many if t y all of those destroyers in reserve.

Admiral TAYLOR. That is 60 per cent.

Mr. KELLEY. You could just about cut that in two?

Admiral TAYLOR. No; 60 per cent.

Mr. KELLEY. Take 40 per cent off?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. \$256,000. When did they give you for 18 oilers?

Admiral TAYLOR. That was last September, sir; practical change in it between July and Septe

Mr. KELLEY. Four colliers are all they in sion. That would take off \$60,000?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Is the *Ajar* in your list?

Admiral TAYLOR. No, sir; she is not in the list.

ALLOTMENT FOR TRANSPORTS.

ELLEY. You have four transports?

al TAYLOR. We originally had 13 transports and cargo

ELLEY. And they are asking for 11 now. They are asking *Henderson*, *Argonne*, and *Chaumont*. They are transports?

al TAYLOR. Yes, sir.

ELLEY. And the *Kittery*, *Newport News*, *Bath*, *Capella*, *Ega* and *Beaufort*.

al TAYLOR. That leaves out the *General Alava*.

ELLEY. They have the *General Alava* in another place. That that hardly rises to the dignity of a collier.

al TAYLOR. That is a cargo vessel.

ELLEY. Or a cargo vessel, either. Suppose you figure the *s*, the *Henderson*, *Argonne*, and *Chaumont* with the eight I or really seven, because the *Pensacola* is a station ship at

al TAYLOR. The *Pensacola* is not in this list.

ELLEY. Then figure the seven.

al TAYLOR. That would be \$560,000 all told.

ELLEY. \$140,000 off?

al TAYLOR. Yes, sir.

ALLOTMENTS FOR GUNBOATS AND PATROL VESSELS.

ELLEY. Are the gunboats and patrol vessels together?

al TAYLOR. Yes, sir.

ELLEY. They have given us 14?

al TAYLOR. They are all classed as patrol vessels and the *s* reduced from 17.

ELLEY. They keep the *Mayflower* in, of course?

al TAYLOR. We have her as a special duty vessel with the *he Denver*, the *Isabel*, the *Niagara*, the *Quiros*, the *Villalobos*, *ville*, the *Galveston*, the *Monocacy*, the *Palos*, the *Sacramento*, *ington*, the *Cleveland*, the *El Cano*, the *New Orleans*, the *va*, and the *Tacoma*.

ELLEY. That is practically the list. They give on the Patrol, the *Wilmington*, the *Palos*, the *Monocacy*, the *El Quiros*, and the *Villalobos*; in the Asiatic Fleet the *Sacra- Asheville*, and in the South China Patrol the *Pampanga*, added to that the *Mayflower*, the *Vixen*, the *Sylph*, the and *Isabel*.

al TAYLOR. We have the *Isabel* on another list, and what e done is to combine the patrol vessels with the special duty

ELLEY. That makes 14 instead of 17. It is not a very large suppose we let it stand?

al TAYLOR. I think you had better, sir.

ELLEY. One survey ship?

al TAYLOR. I think she is out.

ALLOTMENTS FOR SPECIAL DUTY CRAFT.

Mr. KELLEY. The *Hannibal*; that is all right. Commission vessels are all right. What about these special duty craft? That is where you have the *Mayflower*, is it?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Then that other list is pretty large?

Admiral TAYLOR. I think the special duty craft pretty large.

Mr. KELLEY. No; we have here the *Mayflower*, the *Finn Sylph*, the *Nokomis*, and the *Isabel*. They are all classed as special duty craft.

Admiral TAYLOR. We have the *Isabel* classed as a patrol vessel.

Mr. KELLEY. They put these all down as patrol vessels?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. And then there were four or five little ones, 30 or 40 men apiece, like the *Osceola*. Is she on your list?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. The *Scorpion*, however, is quite a ship?

Admiral TAYLOR. She is the station ship at Constantinople.

Mr. KELLEY. We will just let that go. The 12 special duty craft would be reduced to about 5?

Admiral TAYLOR. Yes, sir; and there would be a saving of \$30,000 or \$40,000.

Mr. KELLEY. The 30 fleet tugs were reduced to 23?

Admiral TAYLOR. That would be about \$80,000, sir.

Mr. KELLEY. What about these 16 harbor tugs? We have heard of them before, have we? They are included in the station establishments but you have to keep them in repair?

Admiral TAYLOR. Yes, sir. They are classed as special duty craft in the new list.

Mr. KELLEY. They are manned by civilians, are they?

Admiral TAYLOR. Not now; no, sir. I am pretty sure they are not, some may be.

Mr. KELLEY. They would come in under our shore establishment?

Admiral TAYLOR. Yes; they come in under the harbor tugs.

Mr. KELLEY. Twenty-five Eagle boats. If you take off 10 of them you can take off \$100,000, can you not?

Admiral TAYLOR. If we do not repair any of them; yes.

Mr. KELLEY. And if you do not keep up any of them you can take off \$180,000?

Admiral TAYLOR. That is right; but we still have to keep them.

Mr. KELLEY. It is our hope that you will not run them out longer, and if we do not give you any money for them it is a pretty good excuse for not running them.

Admiral TAYLOR. They are dwindling very fast.

Mr. KELLEY. The faster the better.

Admiral TAYLOR. The Eagle boats are very valuable in the Naval Reserve, I understand.

Mr. KELLEY. At that rate that saves the Government from taking that off of the amount you gave, \$14,214,000 it is \$10,689,000; if you added 20 per cent to that it is \$12,826,800 making \$12,000,000?

Admiral TAYLOR. Yes, sir; but have you made any special duty vessels out of commission?

KELLEY. We will go down through those. You see, the ers made the big item in that and we adjusted that. Suppose it these 41 subchasers entirely out of commission, how much you cut off of the \$164,000?

iral TAYLOR. We have already cut them out, sir; you cut out y any figure for the Eagles and subchasers.

KELLEY. Why do you want the keep 12 mine sweepers in d commission after we have given you all those up above?

iral TAYLOR. That was the list upon which we figured.

KELLEY. That is what you had before, but they have not or those this year?

iral TAYLOR. They were in the operating plan upon which we ed in September.

ALLOTMENT FOR SHIPS OUT OF COMMISSION.

KELLEY. How did you arrive at the \$1,000,000 for your part ships that are out of commission entirely?

iral TAYLOR. We figured that on the new list we will need 000 for the vessels out of commission.

FRENCH. Will that include those which we have just men- as being removed from these two lists?

iral TAYLOR. All told, yes, sir; on the new basis.

KELLEY. How did you figure that?

iral TAYLOR. We figured the ship keepers and a certain t of repairs and maintenance on vessels out of commission. ured it the best we could but we have had no reliable data in st.

KELLEY. You would not expect to spend much in the way of ?

iral TAYLOR. Yes, sir; because things are apt to go wrong at ne; they spring a leak; the drainage pipes get a hole in them; ave to be docked every now and then; there is a certain t of expense which we can not avoid.

KELLEY. The \$1,000,000 you speak of is only for what might led to keep them in status quo after they have been put out of ssion?

iral TAYLOR. Yes, sir.

KELLEY. It does not include anything for putting them out of ssion?

iral TAYLOR. We have made no separate estimate for that. ajority of them will be put out of commission——

KELLEY (interposing). During this year?

iral TAYLOR. Yes, sir; but many of them will go out of com- with their boats and other things of that kind depleted.

KELLEY. That is a good way to have them go out, is it not?

iral TAYLOR. No, sir; they ought to have their equipage.

KELLEY. I mean outside of the destroyers?

iral TAYLOR. They ought to have their equipage available.

KELLEY. On the destroyers?

iral TAYLOR. Yes, sir.

KELLEY. But not as to all of these other ships?

iral TAYLOR. I was thinking more of the destroyers in that ge matter.

Mr. KELLEY. Of course this involves laying up in quite a wholesale way, but we had to do something with

Colonel ROOSEVELT. That was the hypothetical proposition of 65,000 men.

Mr. KELLEY. The list of ships that we practically had. We did have some dispute about how many men it would man them. We have not been discussing anything but ships agreed on.

Colonel ROOSEVELT. I have not that list before me.

COST OF MAINTENANCE OF REPAIR OF SHIPS MAINTAINED FOR BUREAU OF FISH COMMISSION.

Mr. FRENCH. At different places we have tried to matter of expense. In connection with these ships you maintaining at least two for the Fish Commission. The sum is that for the benefit of the Navy?

Admiral TAYLOR. Yes, sir. She works in the West Indies.

Mr. FRENCH. The two Fish Commission ships are maintained for the Department of Commerce?

Admiral TAYLOR. No, sir; we have them, I understand.

Mr. FRENCH. Yes; but I mean the service is being maintained for the benefit of another department, not the Navy?

Colonel ROOSEVELT. That is right.

Admiral TAYLOR. They belong to the Commerce Department.

Mr. FRENCH. It is not fair to the Navy to have it in the country that an additional expense of \$250,000 or more is charged for maintaining ships, when, as a matter of fact, that expense which ought to be charged up to an institution that body is saying should be maintained, and yet while it is going for the results it is not receiving the charge for the expense.

Colonel ROOSEVELT. I agree with you.

Mr. FRENCH. We ought to follow that policy out.

Colonel ROOSEVELT. I think everyone must agree to that.

Mr. FRENCH. I was trying, if possible, to split up the expense and put them where they belong. In a rough way, what say is the expense of maintaining these two ships for your Department?

Admiral TAYLOR. About \$10,000 for Construction and Maintenance.

Mr. FRENCH. That is merely for this item alone?

Admiral TAYLOR. Yes, sir.

Mr. FRENCH. But there would be an item probably that would aggregate two or three hundred thousand dollars?

Admiral TAYLOR. The cost of the crew, the engine, that kind of thing would be very much greater.

Colonel ROOSEVELT. I can not say offhand, but quite I should say about \$250,000 would cover the expense of those ships a year.

Admiral TAYLOR. I think it would. I can answer that matter in the hearings.

Mr. FRENCH. If you will, please.

NOTE. -Average cost per annum, 1920 and 1921, \$172,186.82.

Mr. KELLEY. You have given the expense of maintaining a bureau so far as the ships of the Navy are concerned. The ships that the Navy Department advised you last fall in commission next year. That is correct?

Admiral TAYLOR. Yes, sir. I think I have given you full information on that.

Mr. KELLEY. The figures which you have given this morning were based upon the advice you had last September as to what ships would be kept in commission?

Admiral TAYLOR. And then my estimate had an arbitrary reduction of 20 per cent. I hope you will consider my estimate rather than the arbitrary reduction if you come to a further reduction.

Mr. KELLEY. In compliance with the request to the department this committee, have you prepared an estimate of the cost of maintaining in commission, so far as your bureau is concerned, the ships which could be kept in commission on the basis of 65,000 men?

Admiral TAYLOR. There is some question what could be kept in commission with 65,000 men. With that letter from Mr. Madden I have been furnished a list of ships upon which I have estimated.

Mr. KELLEY. Did they furnish you a list of ships that they would keep in commission with 65,000 men?

Admiral TAYLOR. They simply furnished me with a list of ships upon which to estimate. I think the question of whether they could not be kept in commission with 65,000 men has not been finally settled.

Mr. KELLEY. Please make a statement for the record as to what this estimate we are now talking about is based on?

Admiral TAYLOR. I have a list of the vessels furnished me under date of March 16, 1922, in order to comply with the request of the chairman that certain information be furnished.

Mr. KELLEY. Can not you state exactly what that list is based on? What is the basis upon which your figures are computed?

Admiral TAYLOR. It is a hypothetical list, as to which, I believe, there is a difference of opinion between the Navy Department and the committee.

Mr. KELLEY. No; we did not ask for that. We asked the department to furnish you with a list of ships that they would keep in commission if they did not have but 65,000 men, and requested you to make your figures on that list of ships.

Admiral TAYLOR. I have a list of the ships furnished me.

Mr. KELLEY. The list which they gave you is the list they would keep in commission, as far as you know, with 65,000 men?

Admiral TAYLOR. It is the basis for the estimate for these hearings.

Mr. KELLEY. What is that list headed?

Admiral TAYLOR. "Estimated expenditures under appropriation 'Construction and repair, 1923,' on basis of vessels in service per Navy Department's list of vessels dated March 16, 1922."

Mr. KELLEY. Where is the list?

Admiral TAYLOR. That is the list; it is not itemized by vessels.

Mr. KELLEY. They did not give you the names of the ships?

Admiral TAYLOR. No, sir. Not final list.

Colonel ROOSEVELT. You will have the list of ships, that is, the Navy Department's list, in a very short time.

Mr. KELLEY. Did you reduce your figures by 20 per cent?

Admiral TAYLOR. No, sir. We have made some reductions where we thought we could.

Mr. KELLEY. Is it your understanding that this list is based upon a personnel of 65,000 men?

Admiral TAYLOR. It grew out of that request, sir.

Mr. KELLEY. It is your understanding that it is based on

Admiral TAYLOR. I would not like to state that positively.

Colonel ROOSEVELT. I will answer that, Mr. Chairman—it is.

Mr. KELLEY. We can put into the heading of this table the
based upon the department's list furnished you in response to
request for a list of ships which could be kept in commission
65,000 men?

Admiral TAYLOR. That is Colonel Roosevelt's statement.

Mr. KELLEY. Is that agreeable?

Colonel ROOSEVELT. Yes; quite. The Secretary is expected to
here and submit the list.

Mr. KELLEY. It will not make any material difference?

Colonel ROOSEVELT. There are some minor corrections that the
the Secretary made this morning, not enough to make any

COMPLEMENTS OF DESTROYERS UNDER ALLOCATION BASED ON 50,000 MEN

Mr. KELLEY. Just briefly state what this list does with
destroyers.

Admiral TAYLOR. Sixty-five destroyers in commission. I believe
there are a number, 50 in ordinary, and the rest out of commission.

Mr. KELLEY. What do you mean by "in ordinary"?

Admiral TAYLOR. With a few men on board.

Mr. KELLEY. The term "in ordinary" has gone out of use.

Admiral TAYLOR. Just a few men on board.

Mr. KELLEY. Just a few caretakers. Do you not have to
anybody on board when put out of commission?

Admiral TAYLOR. We have a ship keeper. Of course, we
people who have to inspect them constantly. We have ship
looking out for them. We have been trying to use enlisted
ship keepers owing to the shortage of our appropriation. I
we will have to pay for them out of this appropriation.

Mr. KELLEY. The \$15,000 to each destroyer is for ship
watchers?

Admiral TAYLOR. No, sir; that is for the Construction and
expenditure in maintaining them.

Mr. KELLEY. What condition would these 50 ships be in as
being able to be used?

Admiral TAYLOR. They could not be used until the crew
on and the equipment put on and that kind of thing.

Mr. KELLEY. How much better off would they be if
of commission entirely?

Admiral TAYLOR. They would be somewhat better
they would be better taken care of and would be more ready
for service.

Mr. KELLEY. How many men would you have on each

Admiral TAYLOR. I can not tell you that, Mr. Chairman.

Mr. KELLEY. This is just for the upkeep?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. There would not be enough to navigate the ships?

Admiral TAYLOR. No, sir.

Colonel ROOSEVELT. If you will pardon me, we have 50
the complement on these destroyers, which is enough
out just for short distances.

ALLEY. They would not be in ordinary if they had a 50 per cent complement?

ROOSEVELT. That is what I endeavored to explain, that they were not in ordinary.

ALLEY. It is your understanding that there will be 57 men on 50 destroyers?

TAILOR. I do not think 57 men.

ROOSEVELT. There will be 65 destroyers and 50 with 50 per cent complement, the first line destroyers. That gives an allowance of 850 men and then 7 per cent replacement, which would mean 85 men on each destroyer. I think we would do much better if you allow me to telephone the Secretary and ask him to bring the matter up, because we are proceeding on a basis without the premises.

ALLEY. I rather think we are in pretty good shape, having regard with the inquiry upon the list of ships which you add. Another day would be kept in commission if you had men and then from that we can make the calculation, which is a matter of mathematics afterwards, but I think we want them on record. That is all there is to your estimate for ships. The rest of it? This is the original list and not the revised

PERCENTAGE OF LEAVES AND HOLIDAYS.

TAILOR. We figure, in addition to that, leave and holiday pay for which my original figure was \$1,275,000—

ALLEY (interposing). What is the revised figure?

TAILOR. The arbitrary reduction of 20 per cent would put it at \$1,020,000. The classified force is put in at \$2,750,000, 7 per cent of that is \$2,200,000. In addition to that, incidental for navy yards, inspectors' offices, experimental and research, \$400,000.

ALLEY. That is the revised amount?

TAILOR. I am giving you the reduced amount in each expense at yards and stations not prorated to cost of work, 10, and the maintenance and military stations, \$380,000, a total very close to \$20,000,000.

ALLEY. How many employees did you figure leave and holiday for?

TAILOR. We make that a percentage of the C. and R. pay. It runs between 7 and 8 per cent.

ALLEY. So if the amount were reduced the figure would be accordingly?

TAILOR. Yes, sir.

ALLEY. Why do you figure on 7 or 8 per cent?

TAILOR. That is about it runs.

ALLEY. Based on experience?

TAILOR. Yes, sir; based on experience. That has been so for a number of years.

ALLEY. Just for the record, what is the leave and holiday allowance?

TAILOR. Annual, 30 days. The Saturday half-holiday amounts to six days during the year, and seven national holidays.

ALLEY. Forty-three days altogether?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. They get paid for 43 days they do not work!

Admiral TAYLOR. Yes, sir.

CLASSIFIED FORCE.

Mr. KELLEY. Are you not about ready to make a big classified force?

Admiral TAYLOR. That classified force covers a good deal of not only the work at the navy yards, under the C. and R. appropriation, but it covers the classified force in connection with increase of the Navy work. I have been trying during all years I have been in the bureau to persuade you gentlemen of the cost of the technical work for increase of the Navy to be up to that appropriation, but I have never prevailed. There will be a reduction in that figure, of course, next year, but on the contrary there will be some increase in the number of watchmen commission, and we will have to probably pay watchmen keepers. I should hate to see that reduced next year to \$2,000,000.

Mr. KELLEY. How much will the classified force cost this year?

Admiral TAYLOR. Our limit was \$3,450,000. We have not reached the limit. I think we will spend between \$2,400,000 and \$2,500,000.

Mr. BYRNES. You have cut it down to \$2,500,000?

Admiral TAYLOR. We only spent what we thought we needed. That is not an appropriation; it is a limitation on appropriation.

Mr. KELLEY. If you are spending \$2,400,000 to \$2,500,000, the discontinuance of the ship construction, would not your force fall much lower?

Admiral TAYLOR. Not, however, now, but in 1923-24, that we will have a good deal of work in connection with ship business.

Mr. KELLEY. Will we not all be pretty well out of that by July if we move quickly?

Admiral TAYLOR. I think it will be a slow process, \$200,000 material at least to catalogue, classify, and dispose of, and a bulk of the work will fall upon the other appropriation, we fall off much under C. & R., our inspectors will have a great deal of work to do as regards the work going on by the subcommittee.

Mr. KELLEY. Your technical force will remain about the same?

Admiral TAYLOR. It will remain almost the same. There will be some reduction that will come toward the end of the year, but we are not stopping building ships and we will need a watchmen and it will remain almost the same.

Mr. KELLEY. Not after this coming year?

Admiral TAYLOR. No, sir; after this coming year reduction.

NUMBER AND SALARY OF CLASSIFIED FORCE FOR 1916 AND 1922.

Mr. KELLEY. How many employees have you in the classified force?

Admiral TAYLOR. I will have to put that in the report; I do not know that, sir. March 1, 1922, we had 1,315 outside the navy yards and 74 in the bureau.

KELLEY. And you will also put into the record the number paid on June 30, 1916?

Mr. TAYLOR. Yes, sir.

KELLEY. So you will not have to look that up, I will put it down now. The number on June 30, 1916, was 835 and the total cost of compensation, the amount actually expended, was \$101.87. Is it considerably more than that now?

Mr. TAYLOR. It has been increasing.

KELLEY. How much about?

Mr. TAYLOR. It varies, but I should think the average increase is over 50 per cent.

KELLEY. And the number has increased about what per cent—about 800 and some odd men then?

Mr. TAYLOR. The number has increased over 50 per cent also, I can say, as regards the technical force of the bureau, that we have fewer people than we had in 1916; we have already reduced

KELLEY. You would not like to see that go below \$2,000,000 for its purpose?

Mr. TAYLOR. No, sir. That is a limitation, Mr. Chairman; that is not an appropriation.

KELLEY. I know it.

Mr. TAYLOR. We would not employ men that we did not need, we would cut them down as fast as we can. We will carry out that

EXPERIMENTAL AND RESEARCH WORK.

KELLEY. For incidental expenses you have \$400,000. What are those expenses?

Mr. TAYLOR. That is for the Title V experimental and research work. That is for the navy yards and inspectors' offices, and principally for the pay of men.

KELLEY. What is the money used for?

Mr. TAYLOR. It goes for miscellaneous material, stationery, appliances for the navy yards and inspectors' offices, and miscellaneous charges from time to time which can not be located against specific ships or any other title accounts.

KELLEY. Have you got it distributed in a little more detail?

Mr. TAYLOR. Not in detail; no, sir.

KELLEY. Would it be much trouble to segregate that expense into three or four heads and give the details?

Mr. TAYLOR. We could do that by searching through our books.

BRUNNER. Those expense returns are not reported separately.

Mr. TAYLOR. They are reported under Title V, and it is a little difficult to separate them. Title V includes something like 40 different heads of expense.

KELLEY. Can you give the amount expended for experimental expenses?

Mr. TAYLOR. I think so.

KELLEY. How much is that? Is this laboratory you are talking about next year included in it?

Mr. TAYLOR. No, sir. This includes the model basin at the Washington yard, and the work we do there in connection with

aviation experiments. It includes expenditures in connection with gas masks and gas-protection appliances and methods of use. It also covers the investigation that we are making in connection with oil consumption. My friend, Admiral Robison, is investigating the question reducing fuel consumption on ships, and we are getting help by reducing fouling, which adds to fuel used. We are also testing new and improved materials at navy yards. We are making a year to make tests of tool steel submitted, and awards are made on the basis of the actual tests. A large number of minor items are included in it, but the major items are the model basin work and the wind tunnel at the Washington yard.

Mr. KELLEY. Does that represent a considerable part of the appropriation?

Admiral KELLEY. It is an appreciable part of it, or between one hundred thousand and two hundred thousand dollars.

Mr. KELLEY. Nothing is included in this item for the following year? You are to open next year?

Admiral TAYLOR. Not in this figure. This is work that we have been doing.

Mr. KELLEY. Whose traveling expenses are paid out of it?

Admiral TAYLOR. None; so far as I know.

Mr. KELLEY. I thought something was said about the traveling expenses of inspectors under this item?

Admiral TAYLOR. No, sir.

Mr. KELLEY. What is the rest of it expended for, outside of the mental work?

Admiral TAYLOR. It is for experimental and research work.

Mr. KELLEY. The whole \$400,000?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. What did you mean by your statement in connection with paying the traveling expenses of inspectors out of this fund?

Admiral TAYLOR. That was another fund. You were talking about the previous item. There is no travel at all under this item.

Mr. KELLEY. This item does not include traveling expenses?

Admiral TAYLOR. No, sir.

Mr. KELLEY. Does the previous item include traveling expenses?

Admiral TAYLOR. No, sir; that covers the expenses of the men.

YARDS AND STATIONS.

Mr. KELLEY. For yards and stations, you have \$1,440,000?

Admiral TAYLOR. That is Title G, and the estimate is based upon previous experience.

Mr. KELLEY. How much of that is for new tools?

Admiral TAYLOR. None of it, except for minor housekeeping and maintenance.

Mr. KELLEY. Can you give the details of that?

Admiral TAYLOR. I can not give you the details. It is an item of about \$7,000,000 that is charged up to the appropriation each year, and we have segregated from that what we regard as directly chargeable to this appropriation. The rest of it goes into the cost of work under indirect.

Mr. KELLEY. This is a variable sum, depending upon the work done.

miral TAYLOR. It is a variable sum, but it has been reduced. Year that fund amounted to \$2,623,000 at the ten working yards, it has been cut about one-half.

. KELLEY. How do you determine whether you shall pay any base charges, or not?

miral TAYLOR. As a matter of practice, that is determined by the accounting instructions by the local people.

. KELLEY. They have to follow the instructions of the Navy Department in that regard?

miral TAYLOR. They follow the accounting instructions. Probably you have been told that we are revising our accounting system, when that is done these matters can be determined much more accurately. I would like to say in that connection that a large part of the money that is charged against our appropriation is for indeterminate expenses. For instance, you have been told, I think, that all power could legitimately be paid for from the Yards and Docks appropriation, and technically, under the law, that is true, but as a matter of fact, when power is used in a shop, the charge should be made to the shop and distributed to the jobs in the shop under the appropriation named. Technically, under the wording of the old act, it might all be charged to the Yards and Docks appropriation, and Yards and Docks would then be paying for work done in the shop. However, that was not intended, and the instructions are to have a line of demarcation by which Yards and Docks appropriations are used to maintain the grounds and to provide electricity for lighting the yards, but they should not pay at the present time they do not pay for power used in the shops.

. KELLEY. Do you ever pay for power used on the grounds?

miral TAYLOR. Not except by indirection through indeterminate. The difficulty has been that the indeterminate charges have been entirely too large and a revision of the accounting will strengthen that out, and will make sure, for instance, that the expense of lighting the grounds will be paid from Yards and Docks appropriations.

. KELLEY. How much will this amount to in your appropriation this year?

miral TAYLOR. There is no separation of the expenditures. The expenditure last year was \$2,623,000.

. KELLEY. Will the fact that you will have so many destroyers built up affect this item?

miral TAYLOR. Not very much, and only as the total expenditures at the yard are affected. That item will not fall off proportionately, however, with the total expenditures, but it will be some proportion. There is an irreducible minimum at which we stop.

. KELLEY. How much did you spend in the Yards and Docks last year when this item was \$2,623,000?

miral TAYLOR. Our appropriation then was \$31,000,000.

. KELLEY. So that this, perhaps, would be something in the proportion?

miral TAYLOR. That figure of \$1,440,000 taken from a \$20,000,000 appropriation would be in somewhat less proportion. We cut it almost in half.

Mr. KELLEY: We have already taken off a little bit of

Admiral TAYLOR. I have observed that; but I hope you in mind that there is a constant expenditure under this; we got no appropriation for those other things. You go at zero, but must start some little distance up the scale.

MAINTENANCE OF MACHINERY.

Mr. KELLEY. You have \$380,000 for maintenance. What for?

Admiral TAYLOR. Maintenance of machinery. That is floating property that we have stationed all over the world; this item we separate industrial stations from military stations. For instance, Annapolis is a military station, and we have a large number of boats down there which have to be maintained. Then we have floating equipment at the training stations.

Mr. KELLEY. This is your share of the maintenance where your property is located?

Admiral TAYLOR. Yes, sir. Last year our expense for something over \$1,000,000.

FOR MAKING INVENTORY OF SUPPLIES AND MATERIAL.

Mr. KELLEY. Going back to this classified force, you say we will be a need this coming year for a number of people to make an inventory of the material that you have on hand.

Admiral TAYLOR. A greater number; yes, sir.

Mr. KELLEY. What is the nature of that material?

Admiral TAYLOR. The material includes everything that we have on hand, from a ship, and there is hardly anything that does not go on from bricks to diamonds.

Mr. KELLEY. Was it designed to go on vessels that are being finished?

Admiral TAYLOR. What we are doing now is to make an inventory of that material not only at the shipyards but at the contractors' works. As you know, we have stopped all work on ships to be scrapped. Some of the material is in the yards and a part of it is at the shipyards. It is the purpose of this inventory and classify it and determine what is of value and what could be used, and what should be scrapped. We want to know that material and find out just what part of it can be retained. Some of the material is in the yards for the ships that we will finish, including the aircraft carrier. Some is standard material, and the standard material is in the yards to be used for replenishment and replacements.

Mr. KELLEY. That will make some difference in your estimate for the coming year, will it not?

Admiral TAYLOR. No, sir; because it will probably take a number of years to work that material off.

SUPPLIES AND MATERIAL ON HAND.

Mr. KELLEY. You will have on hand a great store of repair material, will you not?

Admiral TAYLOR. We do not know yet what we will have.

KELLEY. There will be a lot of material that you can use for s and other purposes at the yards?

niral TAYLOR. We do not know what we will have, but there e no large stocks of such things as you refer to. We will have like fans, for instance, but our present thought is that we will bly have to sell off that stuff at whatever price it will bring. gards C. and R. stuff, it may be that it is not of the same

KELLEY (interposing). Do you not have a lot of copper pipe kind that you need so much of in the repair of ships?

niral TAYLOR. We will have a great deal of copper pipe, but we y have a great deal of copper pipe, and iron pipe also. You to our accumulating a large stock of that material.

KELLEY. You will have this stuff on hand which will come to nder the present arrangement. Now, when you take this stuff do you mean to take it over at the price you paid for it, or at rap price, or at the price you can get for it?

niral TAYLOR. That has not been settled yet, but I presume it e fair to take it over at the price for which it could be sold. rse straight pipe is worth practically what we gave for it, but hat is already bent, of which there will be a good deal scattered d the yards, will not be worth anything.

KELLEY. If you take all of this material that you have on for the construction of ships and fix a sale price on it—and s probably what you would do—and then use it at that price, ld make quite a difference, would it not, in the sum you are ; for repairs?

niral TAYLOR. I do not believe so. Of course we have not gone ough to say definitely, but I am of the opinion that it would ake any great difference, so far as my work is concerned.

BYRNES. If you should make the price low enough, you might lot of it.

niral TAYLOR. The question is whether we could use the ial the first year or not.

BYRNES. The presumption was that it was material that could d.

niral TAYLOR. The question is whether we could use much of first year. For instance, taking the greater part of the material, to be incorporated in the ships, all that we could do with them be to cut them up. When a plate has been fabricated and is to go on the ship, ordinarily it can not be used at any other

There is not an enormous accumulation of such stuff at the because we order plating as we expect to use it.

KELLEY. What are the chief items of material that you could making repairs?

niral TAYLOR. Wood, plates, and shapes.

KELLEY. You have a large amount of lumber on hand, have ot?

niral TAYLOR. No, sir; we have not reached the state where r was required in large quantities.

BYRNES. However, the lumber at the yards could be used for s?

Admiral TAYLOR. Some of it could be. We had *l* for teak, which is the most expensive wood used on *sl* large contracts for West Indies teak, but they were *ic*

Mr. KELLEY. What else is there?

Admiral TAYLOR. Plates and shapes constitute by *v* greater part of it.

Mr. KELLEY. These shapes must be made to fit the *shi*

Admiral TAYLOR. They are ordered that way. *E* plating that goes into a ship is ordered for that ship *n* showing the location and dimensions of the plates. *E* that material, except for spares, which are ordered at every ship, is ordered for the particular ship, and the order the rough dimensions of the place it is to fit.

Mr. KELLEY. Give the rest of the large items.

Admiral TAYLOR. It includes piping.

Mr. KELLEY. That will be an item which you can extensively?

Admiral TAYLOR. Piping is always good, but I do not *i* we have any large accumulation of that. We have, for auxiliary machinery, and that is a very extensive item, steering gears, windlasses, etc., but we can not use them *e* the ships for which they were designed.

Mr. KELLEY. Could you not use the steering gears?

Admiral TAYLOR. No, sir.

Mr. KELLEY. Nor the windlasses?

Admiral TAYLOR. We might be able to build a ship *ar* lass, but we would have no use for those appliances, *ex* use them for the aircraft carriers.

Mr. KELLEY. What other material will there be?

Admiral TAYLOR. Then, we have paint, which is a *v* item.

Mr. KELLEY. There would be no trouble about that.

Admiral TAYLOR. There would be no trouble quantities of paint at each place where a ship is *own* the ships except the *Washington* has reached a *st* paint was being used on them. So far they have *i*

Mr. KELLEY. You mean that you have not *mt* *1 on*

Admiral TAYLOR. I believe they will not have They have contracts, but probably not much has The principal paint used during construction is for that is red lead.

Mr. KELLEY. Have you no work on which you *ca*

Admiral TAYLOR. We could use some of it, mercerial article, and we do not carry a very large *uck* It deteriorates in storage.

Mr. KELLEY. What else is there? Are there *y b*

Admiral TAYLOR. The boats are not on any or *t* a few.

Mr. KELLEY. Will there be boats enough to *re* be required during the coming year?

Admiral TAYLOR. No, sir. Those boats *are* ment, and we could not get them for nothing. *J* not supply them.

Mr. KELLEY. You would have to take them at cost?

airal TAYLOR. We supply the boats, and I am afraid that the u of Supplies and Accounts would not allow us to draw them cept at full price. We have never been able to procure any- under Supplies and Accounts except at full price.

KELLEY. What other material have you on hand?

airal TAYLOR. There are anchors and chains, but there will be ittle scrapping in connection with them. They would be used placements and on the aircraft carriers. There will be items would be in a completed ship, such as linoleum, and we have metal. We will probably be able to use the sheet metal, or less, as a standard supply. The large fans are generally ed to suit a particular ship. Although some of the smaller re available for general use, the larger sizes are not adapted thing except the particular ships for which they were designed.

KELLEY. Is the ship program that is to be completed mostly private contract?

airal TAYLOR. Yes, sir. The scrapping will be mostly of ships yards. Six out of 11 of the big ships to be scrapped are in ds.

KELLEY. So that the yards next year will go back practically status of repair yards?

airal TAYLOR. Yes, sir; except that there are a few auxiliaries e are building.

COMPARISON OF TONNAGE FOR 1916 AND 1923 TO BE MAINTAINED.

KELLEY. Then, we can come pretty close to the 1916 cost, justing wages and the increased number of ships, whatever ay be!

airal TAYLOR. No, sir; I do not think so. There is no pros- at wages will be reduced much.

KELLEY. I said after making the proper adjustment for wages r any additional ships, you could go back to the 1916 figure.

airal TAYLOR. Wages are still 66½ per cent above the 1916 in the yards. If you take my appropriation of \$10,000,000 6, roughly, I should say, 60 per cent of it would be wages. would make it \$14,000,000 now on account of the increased and you should consider that the Navy is more than double e of the Navy in 1916.

KELLEY. Thirteen of the 18 battleships would be the same.

airal TAYLOR. But the total displacement involved is very greater.

KELLEY. I am talking about ships that you will have to repair, ot the total tonnage of the Navy.

airal TAYLOR. There is not a ton in the Navy that does not or later involve some expenditure under C. and R.

KELLEY. Let us take the 13 battleships you had in 1916: ave 18 now instead of 13, and you had a predreadnaught fleet 6 of 10 or 15 vessels. You had more battleships in commission 6 than you have now.

airal TAYLOR. Yes, sir; but they were much smaller vessels.

KELLEY. Not so much smaller, because 13 of them were the ones that we have now.

airal TAYLOR. The last five added almost an equal amount of cement.

Mr. KELLEY. But all of those prior to the *Delaware*, including *South Carolina* and *Michigan*, and all of the predreadnaughts will be out of commission.

Admiral TAYLOR. Yes, sir; they will be scrapped.

Mr. KELLEY. So that your battleship situation is not heavier now than then.

Admiral TAYLOR. Next year there will be some additional scrapping—

Mr. KELLEY (interposing). We will take care of the scrapping bill in a separate appropriation. We want to draw a line on the 1st of February, right straight across, and everything that we do with scrapping ships, or with the taking off of material from ships that will be scrapped, will be charged back into a scrapping fund.

Admiral TAYLOR. Including the completed battleships that will be scrapped?

Mr. KELLEY. Yes. Does what I have been asking about make much difference in that figure?

Admiral TAYLOR. As regards the scrapping, our part of the expenditure would be small.

Mr. KELLEY. Your figures do not include anything that is taken out on account of the scrapping?

Admiral TAYLOR. As regards the use of that material, I have figured on it, but I do not believe it would relieve my appropriation for next year \$100,000. I think \$100,000 would be a liberal estimate.

Mr. BYRNES. What about the necessity for the transportation of that material to the yards where you are engaged in repair work on ships, or would there be much transportation cost?

Admiral TAYLOR. There will be a great deal of transportation involved. We are trying to sell as much as possible of it when it lies.

Mr. BYRNES. I suppose there are instances where it would be more economical to sell than to pay the freight on the material.

Admiral TAYLOR. The instructions we are drafting contemplate the sale at once of the small material which will cost more to categorize and classify than it is worth. It is only the material that has a great value that should be stored.

Mr. KELLEY. Would not you and Admiral Robison cover nearly everything that is charged up to the maintenance of the navy yards?

Admiral TAYLOR. We would cover the major part of it.

Mr. KELLEY. A very definite line could be drawn. You and Admiral Robison practically run these navy yards, do you not?

Admiral TAYLOR. We spend most of the money in the navy yards.

Mr. KELLEY. If you two paid all the bills of the navy yards, the left Yards and Docks simply to provide for the military yards, there is no industry going on, you would get this maintenance situation right down into practically one spot in the Navy Department.

Admiral TAYLOR. Then we would be accused of using money appropriated for the purpose of building ships in keeping up the yards, and we would be in the same condition we were in year after year.

Mr. KELLEY. That is what we are doing now; there is \$1,400,000 right here to keep up the yards.

miral TAYLOR. But that is our own plant and it is stuff which would keep up; it may be used indirectly in some cases, but it cannot be used to maintain roads, walks, and things of that kind. We have little or nothing to do with the industrial part of the navy. Our appropriations should be spent entirely for the industrial part.

KELLEY. I should think a road over which you haul your stuff is as essential as a crane or anything else.

Admiral, in view of the reorganization of your accounting system, should the Secretary of the Navy have authority to consolidate or transfer funds from the appropriations made for the Bureau of Ordnance and Docks, Ordnance, Engineering, and Construction and to properly carry out the provisions of your new system?

miral TAYLOR. There is already authority of law to do that. I would rather have the Secretary answer that, but my recommendation would be that I would make no change this year.

KELLEY. You do not want this section repealed this year?

miral TAYLOR. Is that the act of 1914?

KELLEY. Yes—

After there shall be charged against the several appropriations for the support of the naval Establishment the overhead charges incident to upkeep and to industrial navy yards and stations. The total sum so charged shall be distributed in accordance with the work done in the various yards and stations in order that the cost of work may be determined.

miral TAYLOR. I think that should remain, Mr. Chairman.

KELLEY. That is what gives him authority to transfer these funds from one place to another?

miral TAYLOR. Yes, sir.

BYRNES. How much have you on hand to-day?

miral TAYLOR. We have something under \$6,000,000, or, rather, we have the 1st of April.

KELLEY. You mean in this fund?

miral TAYLOR. In C. and R. We were very much alarmed on the 1st of January when we cut down by 25 per cent the allotments, and I had cut down the allotments to the yards because we were running behind, but the people afloat are showing economies now and we will pull through without a deficiency unless we wreck two or three ships.

BYRNES. You will pull through to the end of the year?

miral TAYLOR. Yes, sir.

BYRNES. Do you expect to spend the \$6,000,000?

miral TAYLOR. I expect to spend all but a reasonable balance; we expended \$300,000 last year but had to come for a deficiency, but I hope we will save enough this year to avoid a deficiency. As you know, we have certain expenditures to make after the close of the fiscal year, and the appropriations extend over a period of two years, and we will probably need to save \$300,000 or, perhaps, a little more to cover all payments.

KELLEY. How do you keep track of the repairs on shipboard, do you not have many repairs made on the ships?

miral TAYLOR. Yes; we have a great many repairs made on the ships.

KELLEY. Do do you keep track of the total?

Admiral TAYLOR. We have returns made; we get the info from Supplies and Accounts and we keep an account with as to the C. and R. expenditures.

Mr. KELLEY. How far behind are you?

Admiral TAYLOR. We are not behind.

Mr. KELLEY. I mean on information as to what they have spent.

Admiral TAYLOR. The reports are in for January.

Mr. KELLEY. So you are about three months behind?

Admiral TAYLOR. About that.

Mr. KELLEY. Is there not some way by which you could keep a little closer track of the expenditures being made on shipboard repairs?

Admiral TAYLOR. Are you speaking of the allotments to the ships themselves or repairs at the yards?

Mr. KELLEY. I remember what you said when you came forward on the deficiency.

Admiral TAYLOR. We are getting closer all the time.

Mr. KELLEY. Of this \$20,000,000 that you estimated for before you made your reductions and then before we made further reductions—

Admiral TAYLOR (interposing). The \$20,000,000 was after the 10 per cent reduction. I wish you would start with the original figure.

Mr. KELLEY. What part of that is labor and what part material?

Admiral TAYLOR. Roughly about 55 per cent, our experience shows. It varies between 50 and 60 per cent, but the major part is labor.

Mr. KELLEY. If our suspicions are borne out in practice, that will find quite a large amount of material which you can get pretty cheaply as a result of this scrapping, you could make quite considerable economies.

Admiral TAYLOR. That is a pure hypothesis which we will not discuss.

Mr. KELLEY. I say, if our suspicions should hold out.

Admiral TAYLOR. Yes.

Mr. KELLEY. Of course, that is not a very trustworthy basis. I am wondering whether you have really thought of the possibility with all these ships being scrapped and the material sold at a low price and you being able to avail yourself of it to the extent that the material was useful.

Admiral TAYLOR. As you put it I can only answer yes, because there is no other answer possible, but it is a theory and not a condition.

DETAILS CONCERNING BROOM INCIDENT.

Mr. BYRNES. Admiral, you have informally mentioned brooms. Do you place the orders for brooms?

Admiral TAYLOR. No, sir; they are placed by the Bureau of Supplies and Accounts.

Mr. BYRNES. What did you have to do with the ordering of brooms?

Admiral TAYLOR. You are referring to the broom incident?

Mr. BYRNES. You mentioned brooms, and I wondered whether you had anything to do with the ordering of brooms?

Admiral TAYLOR. Yes, sir; we handle brooms.

Mr. BYRNES. Did you place an order for brooms and then when they were offered to you by the War Department for nothing more than to accept them because they did not happen to accord exactly with the specifications of your department?

ral TAYLOR. No, sir. We advertised for a number of brooms and we were offered War Department brooms at 70 cents. They were 38 cents and a fraction, and I recommended that we be awarded with the New York Institution for the Blind, the one who made the bid, and the Bureau of Supplies and Accounts be awarded accordingly.

BYRNES. Were those brooms surplus brooms in the War Department?

ral TAYLOR. Not as it came to us. They were offered to us by the War Department.

BYRNES. When an order is placed would it come to your office and then go to all the other bureaus in order to ascertain if that material is on hand?

ral TAYLOR. No, sir. In this instance we originated the order and it was referred to the Army storekeeper in New York, who reported that he had these brooms available at a price, and I am very positive in my recollection that they were not surplus brooms, so we would have to pay 70 cents for them.

BYRNES. Did that come to you in the shape of a memorandum?

ral TAYLOR. No, sir; but the bids came to me. All of our orders for material are sent to the Bureau of the Budget to see if the material can be supplied from any other source, and that way the requisition was handled in this case.

BYRNES. From what source did you get information that you would have to pay 70 cents for them?

ral TAYLOR. Our schedule was referred to the Army quartermaster in New York, who said he had these brooms in stock.

BYRNES. What I want to know is whether you have any memorandum in which it appears that you were asked to pay 70 cents or more price for those brooms instead of being offered the brooms at 38 cents, and if you have such a memorandum I want you to put it on record.

ral TAYLOR. My information is that these were offered to us by the War Department and I have no recollection and I am quite sure that no memorandum ever came to me showing that they would be supplied for 70 cents.

BYRNES. What, if anything, came to you indicating that you would have to pay 70 cents?

ral TAYLOR. It was a memorandum from the storekeeper in New York.

BYRNES. I wish you would put that memorandum in the record.

ral TAYLOR. That is probably in the Bureau of Supplies and Accounts, but I can get it; it was simply an indorsement on some invoice saying that these brooms were in stock and available at that price.

WAR DEPARTMENT,
GENERAL SUPPLY DEPOT, QUARTERMASTER CORPS,
New York, November 29, 1921.

Quartermaster Supply Officer.

Director, General Supply, Second Corps Area, 45 Broadway, N. Y.
Supplies required by the Navy.

This receipt is acknowledged of your communication of November 25, 1921, transmitting this depot Navy supply schedules.

Mr. KELLEY. But all of those prior to the *Delaware*, *South Carolina* and *Michigan*, and all of the predn be out of commission.

Admiral TAYLOR. Yes, sir; they will be scrapped.

Mr. KELLEY. So that your battleship situation is heavier now than then.

Admiral TAYLOR. Next year there will be some adding ----

Mr. KELLEY (interposing). We will take care of the bill in a separate appropriation. We want to draw a 1st of February, right straight across, and everything that do with scrapping ships, or with the taking off of material ships that will be scrapped, will be charged back into a fund.

Admiral TAYLOR. Including the completed battleship be scrapped?

Mr. KELLEY. Yes. Does what I have been asking add difference in that figure?

Admiral TAYLOR. As regards the scrapping, our expenditure would be small.

Mr. KELLEY. Your figures do not include anything that taken out on account of the scrapping?

Admiral TAYLOR. As regards the use of that material, I figured on it, but I do not believe it would relieve my for next year \$100,000. I think \$100,000 would be a liberal

Mr. BYRNES. What about the necessity for the transfer that material to the yards where you are engaged in repairs, or would there be much transportation cost?

Admiral TAYLOR. There will be a great deal of transfer involved. We are trying to sell as much as possible of material.

Mr. BYRNES. I suppose there are instances where it is more economical to sell than to pay the freight on the material.

Admiral TAYLOR. The instructions we are drafting provide for the sale at once of the small material which will cost more to store and classify than it is worth. It is only the material of great value that should be stored.

Mr. KELLEY. Would not you and Admiral Robison nearly everything that is charged up to the main navy yards?

Admiral TAYLOR. We would cover the major part of it.

Mr. KELLEY. A very definite line could be drawn between the yards. Admiral Robison practically run these navy yards, do you not?

Admiral TAYLOR. We spend most of the money in the yards.

Mr. KELLEY. If you two paid all the bills of the navy yards, left Yards and Docks simply to provide for the material, there is no industry going on, you would get this situation right down into practically one spot in the navy.

Admiral TAYLOR. Then we would be accused of appropriating for the purpose of building ships in the navy yard, and we would be in the same condition we are now.

Mr. KELLEY. That is what we are doing now; right here to keep up the yards.

I do not propose to make any change in the way we do it, because if I find it necessary to suggest a change, I propose to do it.

DETAILS OF ESTIMATE

KELLEY. Last year, Admiral, you furnished me with a copy of the appropriation. Have you a copy of the appropriation for this year?

ADMIRAL McVAY. Yes, sir.

CHAIRMAN. You suggest that if the Government could reduce the \$12,000,000 estimate to \$10,000,000, it would assume that they have been executed? Would that be the case of activities based upon that assumption?

March, say, how much would you be able to do with \$100,000 which you say you will have as a surplus for the admiral McVay. That is included in what Mr. Macgregor is stopping a certain amount of the activities. That saving would not show for the rest of the year. The part of it is a reduction in the inspection for

"I have cut off from \$1,900,000 to \$1,000,000 saving right there. Of course, going to making these inventories and will be in London before the board that settles the cost."

CHAIRMAN. So you will really not do otherwise might?

niral McVay. Not during the bankruptcy a chance in this estimate and unable to settle this thing by the court. I come to you and say that I understood, because I am figuring on it.

KELLEY. Your fear that it involves any delay in executing the President to enter into treaty with General McVAY. That is something about, but I am assured the 1st of July and that I am

RELIN-

KELLEY. You may not know me, but I am Admiral McVAY. The admiral.

for relining the gips which were worn in the placements, and the last. In this relining of the spare gips are built, the last.

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Admiral McVAY. We are not permitted to substitute calibers.

Mr. KELLEY. How many railway guns have you?

Admiral McVAY. Five. They are the guns which were used and worn so that they have to be relined.

Mr. KELLEY. Do you have them relined at your expense or at expense of the Coast Artillery?

Admiral McVAY. At our expense, because we keep the

Mr. KELLEY. I thought you turned these guns over to Artillery.

Admiral McVAY. We did turn over a certain number of the mounts but not all of the guns; we had to keep some of the because they had been taken from the replacements for the war, and now we have to fix them up for substitution on our

Mr. KELLEY. Those guns must have been guns that you took out of the predreadnoughts?

Admiral McVAY. No; they were the 14-inch, 0.50-caliber

Mr. KELLEY. You took them out of your reserve stock?

Admiral McVAY. Yes, sir; and sent them right over; that is the only way we could do it.

Mr. KELLEY. They were in reserve for these particular ships have named?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And now they have to be relined in order to be the normal reserve of guns for those ships?

Admiral McVAY. Yes, sir.

Mr. KELLEY. What is the amount?

Admiral McVAY. The total amount for all the relining

Mr. KELLEY. How much for these five guns?

Admiral McVAY. \$35,500 out of the \$800,000.

Mr. KELLEY. What is the balance of the \$800,000 for?

Admiral McVAY. The *Texas* has 10 guns and they have to be straightened.

Mr. KELLEY. Because they drop at the ends?

Admiral McVAY. Yes, sir.

Mr. KELLEY. What is the technical name for that?

Admiral McVAY. They have an excessive droop. We have to straighten them, reline them and put an extra hoop on to prevent this drooping.

Mr. KELLEY. Then you have to take all of the guns off the ship for that purpose?

Admiral McVAY. Yes, sir.

Mr. KELLEY. How many are there?

Admiral McVAY. Ten. They will cost \$38,000 apiece,

Mr. KELLEY. It will cost that to take the droop out of the *Texas*?

Admiral McVAY. To take the droop out, reline them, and put an additional hoop; by doing that we find we can stiffen the guns a good deal like putting an extra truss in a building.

Mr. KELLEY. All that work will be done at the Washington Navy Yard?

Admiral McVAY. No, sir, we expect to do quite a bit of that work at the Washington Navy Yard under contract, and that is particularly necessary where we have to straighten the guns, because we have no big press here.

Mr. KELLEY. What is the rest of the \$800,000 for?

miral McVAY. The *Oklahoma* has ten 14-inch .45-caliber guns to be straightened, relined, and hooped. We figure that will cost \$500.

Mr. FRENCH. Is that a common thing, for a droop to occur in?

miral McVAY. All guns have a certain amount of droop, and that particularly so with guns that were built several years ago; since we have taken measures to correct it in later designs.

Mr. FRENCH. Are you correcting it?

miral McVAY. Yes, sir.

Mr. FRENCH. Where it has occurred was it the fault of the contractor?

miral McVAY. No, sir; it was a question of design and unforeseen action; it was not faulty design; it was an up-to-date design, and this drooping could not be anticipated.

Mr. FRENCH. It was an up-to-date design for the time the design was made?

miral McVAY. Yes, sir; and after using the guns quite a while droop appeared, and then we had to take steps to correct it.

Mr. FRENCH. I suppose the heat from the firing would help in curing this drooping, would it?

miral McVAY. That would in a measure, but it is really a question of weight and firing, and the droop has required what I would call an additional truss; the guns are perfectly good and fire all right, every time we reline a gun we do not want the additional expense of having to straighten it.

Mr. KELLEY. What is the rest of the \$800,000 for?

miral McVAY. For twelve 12-inch 0.50 caliber guns on the *Wyoming*, \$102,800.

Mr. KELLEY. What is the matter with the guns on the *Wyoming*?

miral McVAY. They need relining and hooping.

Mr. KELLEY. Have you quite a stock of linings?

miral McVAY. On the *Wyoming* we have the liners, but on the *Oklahoma* we have not; the amount required to complete the liners on the *Oklahoma* is \$4,500 for each one; on the *Pennsylvania* there will be 12,260 for that particular item; for the railway battery and the other ships we have the liners on hand. In other words, wherever we need material on hand we use it.

Mr. KELLEY. All of the guns of the new types which are on the ships to be scrapped are 16-inch guns, are they not?

miral McVAY. Yes, sir.

Mr. KELLEY. So those linings would not do, and you would expect to keep on hand a certain number for the 16-inch ships you are going to build?

miral McVAY. Yes, sir.

Mr. KELLEY. You spoke of some 12-inch guns.

miral McVAY. They are on the *Wyoming*.

Mr. KELLEY. And you probably have a good many 12-inch linings.

miral McVAY. We have those on hand for this particular ship there will be no cost for that.

Mr. KELLEY. It is mostly labor cost in the case of all these except the *Texas*.

miral McVAY. Well, it is practically all labor for the *Wyoming*, the railway batteries and the spare guns.

2. Schedule No. 9047 has been withdrawn and is returned herewith with the information that the 18,000 corn brooms called for can be furnished from stocks on hand at this depot at a price of 70 cents each.

3. The remaining schedules have been transmitted to the surplus property division for advice as to the articles which can be furnished from the stocks under the jurisdiction.

GEO. E. FARR.

Mr. KELLEY. Admiral, we are very much obliged to you.

FRIDAY, MARCH 17, 1922

BUREAU OF ORDNANCE.

STATEMENTS OF REAR ADMIRAL CHARLES B. McVAY, JR. CAPT. F. L. PINNEY, ASSISTANT; AND MR. FRANK S. MALLORY.

ORDNANCE AND ORDNANCE STORES.

Mr. KELLEY. We have with us this morning Admiral McVay, Chief of the Bureau of Ordnance, and we will be glad to have Admiral make any general statement relative to his bureau may desire to make before we take up the items in detail.

Admiral McVAY. Up to 1920 there were several appropriations under the different names which the committee decided to place directly under ordnance and ordnance stores. The estimate for 1920 taking into account the probable cost of material and labor, including all of the items which used to be included and which were not prior to 1920 included in this appropriation but now are not, than any estimate submitted since 1909.

The bureau is pleased to be able to inform the committee that the appropriations made for the fiscal year 1922 were ample and that the establishment of the five-day working week, together with a reduction in labor and material, it will be able to carry on satisfactorily for the remainder of the fiscal year with a probability of being able to return to the Treasury an unexpended balance between \$500,000 and \$1,000,000, depending upon what unusual conditions and sudden emergencies arise during the four months. The estimates as submitted last July for the fiscal year 1923 were based upon the wage scale in effect at that time, took account of a probable reduction in material costs. As a result of the reduced wage scale has been a reduction of approximately 12½ per cent in labor costs at navy yards and stations. The bureau is now able to recommend a reduction in the appropriation "Ordnance and ordnance stores" for the fiscal year 1923 from \$13,130,000 to \$12,000,000. If and when the treaty is ratified, and suitable legislation is enacted, the stoppage of work on vessels to be scrapped, together with the further reduction of labor, will reduce the appropriation to \$10,700,000, which the bureau considers sufficient for its purposes. Since this was written there has been a reduction in enlisted personnel at our stations and unsuitable certain activities being carried on by civilian labor, running boats at the torpedo station and on the range.

do not propose to make any change in my estimates on that point, because if I find it necessary to stop activities to come with-
in, I propose to do it.

DETAILS OF ESTIMATE.

KELLEY. Last year, Admiral, you furnished us with the details of appropriation. Have you a copy again this year?

Admiral McVAY. Yes, sir.

CHAIRMAN. You suggest that if the treaties are finally executed we can reduce the \$12,000,000 estimate to \$10,700,000 for next year.

I assume that they have been executed now, and you enter upon the use of activities based upon that assumption to-day, or as of the

March, say, how much would you be able to add to the \$1,000,000 which you say you will have as a surplus for this fiscal year?

Admiral McVAY. That is included in that, Mr. Madden. We are going on stopping a certain amount of the activities now, but the net saving would not show for the rest of the year because the part of it is a reduction in the inspection force and field force,

I have cut off from \$1,900,000 to \$1,000,000, so there is a \$900,000 saving right there. Of course, our people are all engaged in making these inventories and will be required to come to Washington before the board that settles the contracts.

CHAIRMAN. So you will really not be able to reduce as much as you otherwise might?

Admiral McVAY. Not during the balance of the year; and also, I am taking a chance in this estimate and assuming that we are going to be able to settle this thing by the 1st of July, and I hope if we do so it and I come to you and say this will not do, that it will be understood, because I am figuring optimistically.

KELLEY. Your fear that it might not be settled by the 1st of July involves any delay in executing the treaty and authorizations for the President to enter into negotiations?

Admiral McVAY. That is something, of course, I do not know anything about, but I am assuming we will have the thing cleared up by the 1st of July and that I can make reductions accordingly.

RELINING OF GUNS.

KELLEY. You may now go ahead with your analysis.

Admiral McVAY. The amount for relining guns is \$800,000, and \$1,000,000 for relining the guns of four battleships of the first line, five of which were worn in the railway battery abroad and are required for new placements, and the two spares which are worn and must be replaced. In this relining of guns, in the original appropriation, 25 per cent of the spare guns is provided, and with these spares, where battleships are built, they are one complete set of guns for a vessel of that class.

KELLEY. What will you do with the guns on ships to be scrapped like the *Michigan* and the *South Carolina*?

Admiral McVAY. We will render those guns inoperative by burning them up as scrap.

KELLEY. Under the treaty you are not permitted to use any guns on the scrapped ships to replace guns on any ships you are required to keep?

progress. The estimate submitted for this particular \$654,600, giving an itemized list of the work to be done, a reduction to \$300,000.

Mr. KELLEY. This involves the repair of turret equip capital ship?

Admiral McVAY. We have here the particular ships that on.

MAINTENANCE OF AMMUNITION DEPOTS, ETC.

Mr. KELLEY. Section F, maintenance of ammunition routine work, overhaul, care, preservation, etc., \$1.56, have that by stations, I suppose?

Admiral McVAY. Yes, sir.

Mr. KELLEY. In your bureau you have all the maintenance you do not share with Yards and Docks at all?

Admiral McVAY. At the ammunition depots which are under the bureau we pay all maintenance charges.

Mr. KELLEY. They do your work of repairs to built up and that sort of thing, Yards and Docks, but you pay for it?

Admiral McVAY. Actually, the line is drawn at new construction. They do all the work in new construction and we pay for maintenance.

Mr. KELLEY. They do the work, but you pay for it?

Admiral McVAY. No, sir.

Mr. KELLEY. You do it yourself?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Have you a force for making repairs on

Admiral McVAY. Yes, sir. The reason for the division is the overhead. These are small stations as compared with yards. If we had a separate organization there it would be a public works officer and two or three clerks, and we found it very much cheaper.

Mr. KELLEY. Take this plant here, the Washington?

Admiral McVAY. That is under a different category.

navy yard, and while at an ordinary navy yard only 3 per cent maintenance charges would fall on the Bureau of Ordnance, it is divided in accordance with the amount spent at the different bureaus; at Washington it will run about 10 per cent, practically all the work is ordnance. At our stations it is 100 per cent.

Mr. KELLEY. Why would it not be feasible, a yard like the Washington Yard and have you reap maintenance charges, so that we would know, for instance, the appropriation for Yards and Docks that they are their appropriation for a yard like this?

Admiral McVAY. It is feasible, but there are conditions prescribed by Yards and Docks for navy yards in the law. Appropriation "Ordnance and ordnance" would have to be increased.

Mr. KELLEY. I am speaking now with a view to proposing the regulations modified.

Admiral McVAY. Yes, sir; it is feasible, but there are conditions that we feel they should perform and I feel they existing circumstances.

KELLEY. Nearly all the other navy yards would naturally under the Bureau of Construction and Repair and Engineering. It is not possible to have them bear all the maintenance charges on yards like that and finally segregate a definite line of expense which would be carried in the appropriation for the Bureau of Yards and Docks? It is a great deal of trouble now to know what they are to pay for and what not and it is very hard to make the appropriation. It seems to me you men in authority, running these great affairs, ought to work out for Congress and for the department a plan so when we made the appropriation for Yards and Docks we would know where the money was going to be used.

AIRAL McVAY. I have not gotten much work out of my assistant the last three or four weeks because he is on a board which is into this particular question.

CHIEF CLERK PINNEY. We are hoping to do that very thing, to bring it out so that we can make every charge as far as we possibly can a definite charge against some appropriation and to have control.

In the meantime we are putting into effect on the 1st day of January a modification of the system of accounting whereby we will have the data to enable us to do this in preparing the estimates for next year.

KELLEY. Do not fix it so that you will have too many clerks. CHIEF CLERK PINNEY. No, sir; it will all be done without—

OLIVER (interposing). Will any legislation be required to carry out your plan you have in mind?

CHIEF CLERK PINNEY. No, sir; simply the appropriations would fall under different headings, and there would be a modification of the system, shifting from one to the other in the adjustment.

AIRAL McVAY. Apropos to this discussion of cost, the Bureau of Yards and Docks is different from the other bureaus because we run our own plants.

KELLEY. Except for the new construction?

AIRAL McVAY. Except for the new construction, but we run our plants right from the bureau.

OLIVER. In that connection, if you feel that you will conclude to make a definite plan whereby you can accomplish what you have intended within the next few months, would it not be well if we would make some proviso in this appropriation bill so the Secretary of the Navy might allocate some appropriation?

KELLEY. Make a different division?

OLIVER. So as to conform to the plan which is finally accepted.

KELLEY. I presume they would like that. I think this is what Mr. Oliver has in mind and I rather think you would agree. I do not know whether Congress would agree to it. Suppose, for example, that in making the appropriation for Yards and Docks of \$10,000 or \$6,000,000, the lump sum, whatever it might be, under the new classification, of course, that might be too much or it might be insufficient, and some of the charges that have been going to Yards and Docks would under your plan be transferred to Construction and some to some place else. Under Mr. Oliver's suggestion it might be necessary to put in a provision authorizing the Secretary to consider the appropriation of these funds as one.

AIRAL McVAY. No, sir.

Mr. KELLEY. You would not want your funds interfered
Admiral McVAY. No, sir.

Mr. OLIVER. I feel this way about it: Since the
indicated that they feel confident with this plan they
save money to the Government and at the same time
always know—

Mr. KELLEY (interposing). Hereafter.

Mr. OLIVER. Hereafter; exactly what has been
this or that out of these funds, I should like to put them on
and give them a little leeway during the year so we
when they came before us next year whether or not they
been realized.

Mr. KELLEY. So they would not be in the embar
during the year of saying that the plans they had worked
not be carried out because of insufficient funds in one app
or another.

I wonder if you can not reduce the number of
your depots. We should like to make a little sav
the distribution of the Marine Corps.

Admiral McVAY. Every time you take away a marine I
pay a man \$3.68 a day to take his place.

Mr. KELLEY. Have you surveyed the field lately to
whether you might have a little surplus of marines?

Admiral McVAY. Yes, sir.

Mr. KELLEY. How many marines have you at Hingham?

Admiral McVAY. That is a pretty big station—51. The
of the marines —

Mr. KELLEY (interposing). I know there is an adv
wondered if you could not get along with a fewer number.

Admiral McVAY. Every time you take away a marine
it costs us so much more for a civil employee.

Mr. KELLEY. What do you pay now for a watchman?

Admiral McVAY. \$3.68 on the average.

Mr. KELLEY. That would seem like rather large pay for
man?

Admiral McVAY. Yes, sir. At some of the m
do, is to have a certain number of houses in the g
men live in, and they get those houses for providi
That is our great difficulty, to keep the brush and
and out of the way to keep fires from spreading. T
the marines is that they are inspected and under
and I am for keeping them, as many as we have to
they are much more efficient.

Mr. KELLEY. I think you are right about that.
to have a good man the marine is the best. I thought
your different establishments you could release,
marines altogether?

Admiral McVAY. We have not very many.

Mr. KELLEY. You have 51 at Hingham. Hc

Admiral McVAY. The highest number we have at
Lake Denmark, where we have 68. There we
territory and we have hundreds of millions of doll
They have to cover that very thoroughly.

ELLEY. How many are there altogether? Do they work 8 r day?

al McVAY. Yes, sir.

ELLEY. You have to keep them watching all the time?

al McVAY. Yes, sir. There are 663 of them all told, and 14 stations. Now, that is \$3.68 per day for watchmen, or what it would cost us under this appropriation to replace It would be about \$2,000 per day.

ELLEY. And they would not be as good help to you around unition?

al McVAY. No, sir; I want to keep my own people.

LIVER. We would not want you to have to substitute for I think that would be a mistake.

al McVAY. I am quite sure it would be.

ELLEY. How many enlisted men do you have?

al McVAY. I do not expect to have more than about 425.

ELLEY. In all the stations?

al McVAY. Yes, sir.

ELLEY. Are they watchmen mostly?

al McVAY. No, sir; not watchmen at all. They run the id at certain of the stations where we have very confidential be done we have chief petty officers do it.

ELLEY. Would that be in the case of proving the guns?

al McVAY. No, sir; in connection with torpedoes and mines.

LIVER. A part of the duty is of a military nature, and I that results in a training that would be of good service in emergency should arise?

al McVAY. Yes, sir; that is the idea. That is the great in making a reduction of any force at a torpedo station, nce, because those men have been doing the work and we n teaching them to do the work. Then they go to sea and ers come in.

LIVER. So that it is really a naval training?

al McVAY. Yes, sir.

LIVER. And it is absolutely essential to the proper carrying ur work?

al McVAY. Yes, sir. There are certain things that we would nit civilians to do, because we have no hold on them. They nd take this information with them, and we can not afford ur chief petty officers are the men who do this, and they are ong service. We will not lose them and we can trust them.

FORT LAFAYETTE, N. Y., ROOF CONSTRUCTION.

ELLEY. Yesterday there was considered an item of \$10,000 f on one of your buildings.

al McVAY. That is a roof at Fort Lafayette, in New York Iona Island is quite a way up the Hudson River, out of e of guns, and this station at Fort Lafayette is simply a place 1 they bring down ammunition. For instance, if a ship harbor and lands ammunition there, we ship it later to Iona r we may bring a barge load of ammunition down from there. regulations make that rather difficult.

ELLEY. Is the roof in such shape that it can not be repaired?

Admiral McVAY. No, sir; we can repair it.

Mr. KELLEY. I understood that they had to replace it

Admiral McVAY. This item covers approximately the roof of the magazine building at Fort Lafayette, the eighths having been covered in 1918 at a cost of \$67 1/2.

Mr. KELLEY. What do you cover it with?

Admiral McVAY. It is a fireproof material, and it is to the water. If the ammunition gets wet, we have to take it

Mr. KELLEY. What do you put on the roof?

Admiral McVAY. That is a detail that I am not positive

Mr. KELLEY. It is some fireproof material?

Admiral McVAY. It is iron.

Mr. KELLEY. Are there any large items of repairs at naval ammunition depots?

Admiral McVAY. No, sir. There is one for a dock at I but that is in Yards and Docks estimates. Ours are not

Mr. KELLEY. The bulk of this first column for u nance, and repairs is for maintenance?

Admiral McVAY. Yes, sir; practically all of it. Our is very small.

Mr. KELLEY. This covers fuel, coal, etc.?

Admiral McVAY. Yes, sir; everything.

Mr. KELLEY. And civilian employees?

Admiral McVAY. Yes, sir; except the classified. That is separate column.

OPERATING EXPENSES, NEWPORT, R. I.

Mr. KELLEY. For operating expenses at Newport, R. I., I estimate \$962,465, for the Newport (R. I.) Naval T S suppose that is mostly pay, or is this a repair pr

Admiral McVAY. It is for the upkeep of the gr the main island, and some buildings on Goat Island, and Rose Island. We have three islands.

Mr. KELLEY. This estimate for Newport, R. I., \$1,256,665 simply includes repairs, upkeep, and buildings, the repair of torpedoes now in the service, ing of spare parts, and that sort of thing.

Admiral McVAY. Yes, sir.

Mr. KELLEY. It does not include anything for

Admiral McVAY. No, sir; nothing.

CHARLESTON, W. VA.

Mr. KELLEY. For Charleston, W. Va., you have a total I wish you would give us that in detail.

Admiral McVAY. That is now closed up.

Mr. KELLEY. It is closed up entirely, so that it

Admiral McVAY. That has been cut out. The connection is this: I called on the inspector to give maintaining the plant in a condition of readi an estimate of about \$268,000 a year. I sent it I would like to have another one, and he gave me a I considered too low. I figure that it will cost us to that place for a year about \$125,000.

BYRNES. What will you do to maintain it, or what kind of will you keep there?

airal McVAY. We have to keep a force to guard the plant, and we will have to keep a force to examine the machinery.

BYRNES. Whom do you keep there for guarding the plant?

airal McVAY. We may have to have civilians.

BYRNES. Do you have three shifts, guarding the plant 24 every day?

airal McVAY. Yes, sir; we will have to do that if it is closed.

BYRNES. What else do you have besides watchmen?

airal McVAY. There will be a certain number of men to examine the machinery and turn it over and keep it from rusting. as practically the limit.

BYRNES. It is cheaper to use watchmen than to use marines instead men?

airal McVAY. We have marines there now. We could not list men for that.

BYRNES. Would it be cheaper to have marines perform that

airal McVAY. I think it is cheaper to have marines, yes, if that comes under another appropriation.

BYRNES. Under what appropriation?

airal McVAY. For the Marine Corps. It is cheaper, I believe. By rate, it is more efficient.

BYRNES. You stated that you expected to put civilian guards

airal McVAY. I may have to.

BYRNES. Why do you say you may have to?

airal McVAY. Because if they reduced the number of enlistments in the Marine Corps, and they were withdrawn from that station which will probably happen, then I would have to employ men.

BYRNES. If marines are furnished, you would not employ men watchmen?

airal McVAY. No, sir; we would not employ them. I would limit it to the employment of people to look out for the machinery. I have fixed the arbitrary figure of \$125,000 for that

BYRNES. How many marines will you require?

airal McVAY. We had 43 in December and 1 officer.

KELLEY. Do they work in 8-hour shifts?

airal McVAY. Yes, sir; they take tours of eight hours.

BYRNES. Your opinion is that it would be cheaper to have men than to employ watchmen?

airal McVAY. Yes, sir.

BYRNES. What would you pay watchmen?

airal McVAY. The average is about \$3.68 per day, but I am interested in the fact that the marines are much more efficient.

KELLEY. The expenses other than the maintenance of South Boston, you will eliminate entirely?

airal McVAY. Yes, sir; if the treaties go through.

KELLEY. That would take off what appears in the third item?

airal McVAY. Yes, sir.

INDIANHEAD AND DAHLGREN, MD.

Mr. KELLEY. Are there any other places in a simi that of Charleston because of the treaties? How about and Dahlgren? Will they come down some?

Admiral McVAY. Dahlgren and Indianhead are very last year. For Dahlgren and Indianhead we have the \$500,000 this year, as against something like \$1,500,000

Mr. KELLEY. What is the item of \$380,000 for India

Admiral McVAY. I have cut that to \$200,000, be first place, we will finish our program about the 1st of powder, and then the work for these airplane carriers will go months more. What I am figuring out now is what it upkeep, and not for running, and what it will cost to reduced capacity in order to maintain our force. I advisable to maintain our force. I have found, for when we were turning out powder at the rate of 6,0 day the cost of the powder was high; so I told the out all the powder he could per day with the minimum he had, or just enough to carry the plant, and he cents per pound just by doing that.

When I figure out the maintenance charge and distary reasons for continuing it, which I consider of tance, I think it will probably pay us to assume u per pound of powder.

Mr. KELLEY. Fifteen cents?

Admiral McVAY. Yes, sir.

Mr. KELLEY. The powder you are making there

Admiral McVAY. No; we are finishing up for the 10 guns.

Mr. KELLEY. You will probably discontinue that right

Admiral McVAY. No, sir; that work will continue, I about the 1st of August.

Mr. KELLEY. We have how many ships which carry that?

Admiral McVAY. Three.

Mr. KELLEY. And you are making the powder for

Admiral McVAY. Yes, sir; then when we finish that on some 6-inch powder.

Mr. KELLEY. But you are going to run the plant at minimum?

Admiral McVAY. Yes; the very minimum at which I the force.

Mr. KELLEY. You do not mean to maintain tl to maintain the organization?

Admiral McVAY. Yes, sir; that is all we have number of men that can operate the plant efficiently, would be very wise to go up in the cost of pc force together.

Mr. KELLEY. Have you cut the estimate for the l Ground?

Admiral McVAY. Yes, sir; we cut that to \$300,000. work in sight there right along.

Mr. KELLEY. Just give us the details of the

Admiral McVAY. I have not the details of that, estimate was \$732,000. I went over it and cut it to

KELLEY. Is there a power plant there?

IRAL MCVAY. Yes, sir.

KELLEY. And that would include the maintenance of the plant?

IRAL MCVAY. Yes, sir; the upkeep of the grounds and the test aeries, as well as our range work. Of course a part of the e is covered by experiments, ordnance, and a part of it will eed in the cost of material for new construction.

KELLEY. Will you take the smaller guns down there?

IRAL MCVAY. We have everything there.

KELLEY. You do not do any testing at Indianhead?

IRAL MCVAY. Practically none. It is a considerable expense inue that work at two places.

KELLEY. This will not be run very extensively, will it?

IRAL MCVAY. Oh, yes; very extensively.

KELLEY. As much so as heretofore?

IRAL MCVAY. Yes, sir; I expect to keep it going right along on ad development work. It takes a long time to work out new —fuses, ranging, test of projectiles, illuminating shells, and all rt of thing.

KELLEY. There is not anything included in this \$300,000 for ction?

IRAL MCVAY. Nothing whatever.

KELLEY. You have finished your construction entirely?

IRAL MCVAY. We are not permitted to construct anything new.

KELLEY. This item is simply for the upkeep of the plant—the and lighting?

IRAL MCVAY. Everything of that kind. It is maintenance.

KELLEY. And necessary repairs and experimentation?

IRAL MCVAY. Experimentation; yes.

KELLEY. It is really an operating expense rather than a main-e expense?

IRAL MCVAY. We call it a maintenance expense, but it is an ng expense.

KELLEY. How many civilian employees do you have there?

IRAL MCVAY. We had 353 on the 1st of January.

KELLEY. Will you need that many next year?

IRAL MCVAY. Yes, sir; we expect to keep practically all of

OLIVER. What is your officer personnel there, your enlisted el, and Marine Corps?

IRAL MCVAY. There are 71 marines at the two stations, some powder factory and some at the lower station.

OLIVER. What is your officer personnel and enlisted personnel?

IRAL MCVAY. We have 11 commissioned officers of the line and nt officers, making 17, and 10 of the staff. Of these 17 of the nly are Naval Academy graduates.

OLIVER. What about your enlisted personnel?

IRAL MCVAY. There are 83 in the enlisted personnel, both and afloat.

OLIVER. Do I understand that the appropriation you are for does not include any item for new construction or for ilding, but purely for the purpose of carrying on your experi-work and maintaining the station?

Admiral McVAY. And operating it, overhauling, and all that sort of thing. Of course, when a road we must fix it up.

Mr. OLIVER. You have concrete roads there now, have

Admiral McVAY. No, sir; not concrete roads.

Mr. OLIVER. Then you have a railroad there for switchi

Admiral McVAY. Yes, sir.

Mr. OLIVER. And you have an air field there?

Admiral McVAY. A very small one.

Mr. OLIVER. I thought you were contemplating and has it been enlarged?

Admiral McVAY. No, sir.

Mr. OLIVER. I thought it was to be doubled in size.

Admiral McVAY. No, sir.

Mr. OLIVER. You do all of your gun testing there, and small?

Admiral McVAY. Practically all; yes, sir.

Mr. OLIVER. Do you find it is a better station for guns than the one you abandoned?

Admiral McVAY. Indianhead has not been an effi for the last 20 years.

Mr. OLIVER. In other words, you are not prepared at to test your large guns?

Admiral McVAY. It is not possible to range a modern Indianhead without taking a risk which I will not take.

Mr. OLIVER. And you find that at this place you can the small and large guns?

Admiral McVAY. Yes, sir. At Indianhead you can gun, under ordinary conditions, beyond 12,000 yards, an exceptional day you can range it to 14,000 yards, but when we have a line of fire of 30 miles. We found that range tables were correct because they had been firing at 8 degrees elevation only, and beyond a 14,000 or 15,000 yards the ranges were calculated and determined as a result of firing and, therefore, we they were all incorrect, and that is a matter of consequence in opening ranges for battle as well as through and it has not been possible, since long-range guns to properly range them at Indianhead, nor can we to do it there.

Mr. BYRNES. What is the reason?

Admiral McVAY. I would like to show you that it would be better than all the talking I could do.

Mr. KELLEY. You want \$1,900,000, I take it, for service?

Admiral McVAY. We cut that to \$1,000,000.

Mr. RAY. We made the cuts for South China and all those places.

Mr. KELLEY. Separately?

Mr. RAY. No, sir. We cut from \$1,900,000 down and that includes the cuts for all the other stations.

Mr. KELLEY. That is about twice as much as we have in war, but I suppose you can not cut any more than are higher.

iral McVAY. The wages are higher, and the clerical and al force of the bureau is divided up; Captain Pinney has d and rearranged it so that we have clerks doing work for three different sections.

rdance with the wishes of the committee, the following summary is furnished, the composition of the estimate under the appropriation "Ordnance and stores" as originally submitted to Congress, and the reductions made which total amount required down to \$10,700,000:

estimate as submitted to Congress:

section.....	\$900,000
et mount section.....	300,000
der and explosives section (includes maintenance of munition depots).....	1,567,600
edo section (includes maintenance of torpedo stations).....	1,450,000
or and projectile section (includes maintenance of nance plants and proving grounds).....	2,150,000
control and optical section.....	2,000,000
dside mount and small-arms section (includes target (ts).....	950,000
ation ordnance section.....	350,000
section.....	650,000
stant chief of bureau (ships' allotments, contingent, arine Corps allotment, etc.).....	912,400
sified employees.....	1,900,000

total..... \$13,130,000

ns:

uction to new rates of pay at navy yards and stations	
pproximately 12½ per cent for mechanics, etc., and 17	
r cent for clerical, drafting, technical force, etc.).....	1,000,144
uction in estimated cost of projectiles.....	115,252

total..... 1,115,396

und figures..... 1,130,000

12,000,000

her reductions on account of scrapping ships—

Elimination of 16-inch target projectiles.....	129,000
Reduction in maintenance, South Charleston.....	125,000
Reduction in maintenance, Indianhead.....	180,000
Reduction in maintenance, Dahlgren.....	70,000
Reduction in classified force (clerical, technical, draft- ing, inspection, etc.) and miscellaneous savings....	800,000

Total..... 1,304,000

In round figures..... 1,300,000

Total..... 10,700,000

tion on amount to be expended for chemists, clerical, drafting, inspection, n, and messenger service in navy yards, naval stations, etc., to be reduced 00,000 to \$1,000,000.

PURCHASE AND MANUFACTURE OF SMOKELESS POWDER.

KELLEY. For purchase and manufacture of smokeless powder d \$200,000 last year?

iral McVAY. Yes, sir.

KELLEY. What is your estimate for this year, Admiral?

iral McVAY. I cut that to \$167,000.

KELLEY. This is small ammunition?

iral McVAY. That is for the target-practice powder.

KELLEY. You have no stock of this powder on hand?

Admiral McVAY. We have not an adequate stock.

Mr. KELLEY. For target practice?

Admiral McVAY. No, sir.

EXPERIMENTAL WORK.

Mr. KELLEY. For experiments, Bureau of Ordnance you had \$250,000; what is your estimate this year?

Admiral McVAY. I cut that to \$205,000.

Mr. KELLEY. You are keeping up the same general limit?

Admiral McVAY. Yes, sir; we have all we can do.

CONTINGENT, BUREAU OF ORDNANCE.

Mr. KELLEY. For contingent, Bureau of Ordnance, \$20,000 last year?

Admiral McVAY. I cut that to \$18,000. There price for type of material carried, but I thought we were cutting we would cut that, too.

NAVAL AMMUNITION DEPOTS, ETC.

IONA ISLAND, N. Y., REPAIRS TO SOUTH DOCK.

Mr. KELLEY. On page 118 there is ordnance stores. I imagine that would be a violation of the act.

Admiral McVAY. That is cut out. Cavite at Olongapo, come out. At Iona Island, N. Y., that dock so we can use it.

Mr. KELLEY. That is necessary?

Admiral McVAY. Yes, sir. That dock is about 300

Mr. KELLEY. Three hundred by 25 feet. He says: rebuild it for \$15,000?

Admiral McVAY. I do not believe you could rebuild \$15,000.

NOTE.--The south dock at Iona Island was used as the main station for the Government in 1899, and, except for minor repairs and reconstruction, is the original construction in use at the time of the present appropriation. The dock has been in poor condition, about 40 per cent of which have been broken off or rotted that they render no support to the dock whatever. Due to the heavy ice at this place in the Hudson River during the winter season, and the present structure has been in use, the repairs outlined are deemed necessary, as this dock has been and is in constant use.

LAKE DENMARK, N. J., ADDITION TO WATER MAIN, ETC.

Mr. KELLEY. Is it necessary to put in the water main at Lake Denmark?

Admiral McVAY. Yes, sir. That is about 20 miles to go out any time and then we would have no fire water.

Mr. KELLEY. The next item is the roof that was built while ago?

Admiral McVAY. Yes, sir.

CHARLESTON, S. C., MAGAZINE FOR WAR HEADS.

KELLEY. What about this magazine for war heads at Charleston? Is it necessary to build any more magazines?

WIRAL McVAY. The trouble with the war heads is that the active magazines are based on Charleston and the war heads are at present in report.

KELLEY. My understanding is that they are going to take the magazines to Philadelphia?

WIRAL McVAY. Those that go out of commission. The active magazines will be based on Charleston.

KELLEY. There will be only 19 in the Atlantic, one division?

WIRAL McVAY. Yes, sir.

KELLEY. They are asking for five squadrons of 19 each and they are going to the Pacific, one to the Atlantic, and eight to the Mediterranean, so I should think you could get along without them. We do not want to handicap you in any way.

WIRAL McVAY. I think it would be very dangerous. These magazines have to be put off by themselves, because if you put them where the torpedoes are or around the station they may blow

up the fuse and detonator house at Puget Sound, that is a very explosive and goes off very easily.

LAND, CALIF., NAVAL AMMUNITION DEPOT, ADDITIONAL STORAGE FACILITIES.

KELLEY. The next item is the additional storage facilities at Land, Calif. If it is an addition to the building, we can carry it. If it is a new building, we can not.

WIRAL PINNEY. That is a difficult question to answer. The appropriation gave us a certain length of building, which we must stick to. The additional construction will be a continuation of the same building.

KELLEY. How far is this away from the yard?

WIRAL McVAY. It is on the island, a couple of miles from the main section.

PEARL HARBOR, HAWAII, NAVAL STATION, LIGHTING AND POWER EXTENSION.

KELLEY. Is this storage building in Hawaii necessary?

WIRAL McVAY. Yes, sir.

KELLEY. Is that an addition to the building?

WIRAL McVAY. It is additional storage facilities; we can not do that.

KELLEY. The lighting and power extension, do you have to do that?

WIRAL McVAY. Yes, sir; \$15,000.

KELLEY. They said that involved laying new conduits, taking them out of the air and putting them under the ground?

WIRAL PINNEY. Yes, sir; that is right. The temporary poles are a constant danger, because they blow down at every wind.

NAVAL TORPEDO STATION, KEYPORT, WASH., TORPEDO STORAGE.

KELLEY. The next item is the torpedo storage at Keyport. That is an addition to the building?

WIRAL PINNEY. I think that is; I am quite certain it is.

Mr. KELLEY. You have a building that is not quite the or something of that kind?

Captain PINNEY. It is a short building and there is room to and make it longer.

Mr. KELLEY. Then, it is an addition to the storage?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Do you think you have to have that this year?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Last year you stated that you could without it?

Admiral McVAY. Yes, sir; but we have to have it now.

Mr. KELLEY. Because of the larger number of ships out there?

Admiral McVAY. Yes, sir.

FRIDAY, MARCH 17,

BUREAU OF MEDICINE AND SURGERY.

STATEMENTS OF REAR ADMIRAL E. R. STITT, SURGEON GENERAL, UNITED STATES NAVY; DR. W. R. JOINER, CLERK; AND MR. W. R. JOINER, CHIEF OF

SURGEONS' NECESSARIES, ETC.

Mr. KELLEY. We have with us this afternoon Ad Surgeon General of the Navy, and his assistants. As for surgeons' necessities for the current fiscal year, it is \$2,920,000. How much are you estimating for this year?

Admiral STITT. \$2,400,000.

Mr. KELLEY. I would be glad to have you make any statement you care to make about that reduction and how you arrived at that.

Admiral STITT. In the appropriation for the fiscal year we had \$2,500,000, and then we were given a deficiency of \$500,000, making \$3,000,000. Of that \$3,000,000 the sum of about \$558,000, and we calculate that that you gave us last year we will turn back into the current year \$500,000. That represents expenditures of about \$558,000 have been from month to month trying to decrease expenditures by cutting down requisitions, but I rather think that we are now to the point where it will be difficult to save much more.

Mr. KELLEY. Have you the details of this estimate?

Admiral STITT. Yes, sir.

Mr. KELLEY. This table covers the civil establishment supplies?

Mr. JOINER. That is for medical supplies alone.

Mr. KELLEY. What is the total amount required for medical supplies out of this \$2,400,000?

Admiral STITT. \$1,700,000 is what we have for civilian employees in the hospitals, and then the small amounts for special diets, is for medical supplies and takes up the rest of the \$2,400,000.

ELLEY. The civilian employees take \$1,700,000 and the for supplies is \$700,000?

al STITT. Yes, sir; including an amount for special diets.

ELLEY. The \$1,700,000 for civilian employees includes all of in all of the hospitals, exclusive of the nurses?

al STITT. Exclusive of the nurses and the Hospital Corps. es the carpenters, painters, plumbers, cooks, mess attendants, men, and all civilian employees that are necessary in con- a hospital service.

ELLEY. If we should reduce the Navy to 65,000 men, or some nber, would it make some difference in this item of \$1,700,000 an employees in hospitals?

al STITT. We could reduce only by putting hospitals out of ion if they were not needed.

ELLEY. That would probably follow, would it not, with the duced to 65,000 men.

al STITT. Wherever we see we are justified in doing so we do or instance, since I appeared before you last year, we have ver our hospital at Fort Lyon, which was the tuberculosis of the Navy, to the Veterans' Bureau. It was, as you will er, about an 800-bed hospital that could possibly be expanded ,000-bed hospital. We had only about 150 Navy patients y reason of the fact that those tuberculosis cases in the Navy tited to war-risk compensation, those patients were charges 'eterans' Bureau rather than of the Navy. Therefore, we at we could not justify ourselves in using that hospital. erans' Bureau was very desirous of having a large hospital of d, and it was given to them by Executive order. The hos- th its equipment and everything of that sort, was turned hem October 31, 1921, but it was run by Navy personnel up rch 1, 1922. Now they are running it with Public Health rsonnel. As I have said, that hospital was put of commis- l, of course, if we saw that we would hardly be justified in a hospital for the Navy, we would probably follow that e and turn it over to the Veterans' Bureau, if they should be of such a hospital.

ELLEY. You would concentrate your patients into fewer , and turn over the excess hospitals to the Veterans' Bureau?

al STITT. Yes, sir.

CARE OF PATIENTS OF VETERANS' BUREAU.

ELLEY. How many patients are you taking care of for the ' Bureau in naval hospitals?

al STITT. We are offering them 3,000 beds. That is one of difficulties we have. For instance, at the Chelsea Hospital, ston, we offered them 539 beds. We had figured for the eeds a certain amount in the way of hospital wards for caring agious diseases, where we had only a few cases of each kind e, and certain wards had to be put out of commission for , etc. We figured that we could let them have 539 beds. ght that they would use every one of those beds, because at e there were more patients in that district than there were ilable, but at the present time they are using only 339. In

other words, there are 200 beds available for them that are piled. While we have 3,000 beds that we are offering them, only 1,394 patients for those 3,000 beds.

Mr. KELLEY. You could take 1,700 more patients from the Veterans' Bureau than they are now giving you?

Admiral STITT. With additional personnel, yes, sir. If I tell us, "We are going to give you 100 additional patients next month or so," then we would try to get additional doctors sent to the hospitals so as to take care of that number of patients.

Mr. OLIVER. Do they contribute to the expense of caring for patients that they send to you?

Admiral STITT. That arrangement was made by my predecessor, General Braisted.

The CHAIRMAN. They pay about \$4.25 per day per patient?

Admiral STITT. \$3.

The CHAIRMAN. But the total cost would run up to that?

Admiral STITT. Yes, sir; but at the present time we are paying for the personnel—that is, for the medical personnel, nurses, and the Hospital Corps personnel—except to this may remember, Mr. Kelley, that I asked your permission to take up with the Bureau of Navigation the matter of transferring 500 additional Hospital Corps men for us, so as to be in the care of Veterans' Bureau patients. The Veterans' Bureau transferred that and transferred to "Pay of the Navy" \$410,000 for those additional Hospital Corps men, but with the exception of that amount, the other charges for personnel have been borne by the Navy.

Mr. KELLEY. How do you fix this charge of \$3 per patient?

Admiral STITT. We held a conference with the Veterans' Bureau, or, rather, with the War Risk Insurance Bureau, as it is now. During the fiscal year 1921 the cost of subsistence and maintenance of buildings, including additional power plants, and every sort of thing accounted for in all of the hospitals that were caring for patients of the Veterans' Bureau, was \$3.12. We are carrying that in cost all the time, and I believe that cost would not be 3 cents less from the figure of \$3, one way or the other, if we took the date, exclusive of the personnel.

Mr. KELLEY. You have to have more nurses, of course?

Admiral STITT. Yes, sir.

Mr. KELLEY. And also more doctors on account of the increase in patients?

Admiral STITT. The Federal Board on Hospitals has estimated that is their requirement of all contract hospitals, the care of Veterans' Bureau patients—one doctor to 20 patients and one nurse to 10 patients; so that with those requirements we have to have a number of medical officers that are necessary for the Navy. We must meet their requirements. We have had to add to the number of our doctors, over the last year, it is very difficult for us to form any estimate as to how many Navy patients we may expect in the hospitals coming this year, is to say, when the fleet goes South, the number of Navy patients in the New York hospital may fall off one-third or one-fourth when they come back —

Mr. OLIVER (interposing). When you find it necessary to employ additional medical help in order to meet the demands of the Veterans' Bureau, do you give to those physicians you call in a permanent status in the Medical Corps of the Navy?

Mr. STITT. We have not had to call in any. We have always made use of our own personnel, but recently we have done that by passing a measure that I think I spoke to you about last year, and that I feel is very important to our corps—that is, giving our medical officers an opportunity to take post graduate courses. They are rusty unless they have the opportunity of taking a three or four months course and brushing up on medicine and surgery. Unless we do that, they can not do the best work.

Mr. KELLEY. When you find that you need more doctors at a hospital, I suppose you meet the need by moving your physicians from one hospital to another, where the naval necessities make that desirable.

Mr. STITT. Yes, sir.

Mr. KELLEY. For instance, if you had a hospital at San Diego and the fleet had left there so that you did not need so many doctors out there, you would assign the surplus number to some other place where you had a deficit?

Mr. STITT. Yes, sir.

Mr. KELLEY. So that it is not any great load, or what you are doing is not to take a load on here on that account?

Mr. STITT. Except that we have not been able to give the members of the Medical Corps an opportunity for post graduate study and study so as to keep them up to date.

Mr. KELLEY. Outside of that, we are not employing any more doctors than you would employ to handle the regular naval business?

Mr. STITT. Yes, sir.

Mr. ROOSEVELT. I do not think that is quite straight.

Mr. STITT. We have, as I have said, curtailed our professional personnel and we have not provided a personnel for 3,000 of those patients. We have been able to take care of 1,394 of them, which is about the minimum number that they have sent us, without employing any personnel outside of the Medical Corps of the Navy.

NUMBER OF DOCTORS AND TOTAL NUMBER OF PATIENTS.

Mr. KELLEY. How many doctors have you altogether?

Mr. STITT. Eight hundred and two at present.

Mr. KELLEY. What is your total hospital population, or total number of patients?

Mr. STITT. The last figures were 4,805.

PROPORTION OF EXPENSE PAID BY VETERANS' BUREAU.

Mr. KELLEY. You do not get anything from the Veterans' Bureau except the cost of the food and the care of the patients—is that is, you do not get anything for taking care of the buildings or on the part of the doctors and nurses?

Mr. STITT. For the maintenance of the buildings, yes, sir, for repairs to the buildings. They also pay their part of the expenses of subsistence, and pay of the civilian employees, but not pay of those coming out of Pay of the Navy, including Medical

Corps, Nurses Corps, and Hospital Corps, with the ex \$410,000 which they transferred to Pay of the Navy.

Mr. OLIVER. Do you fix that amount according to number of naval men and Veterans' Bureau men in t

Admiral STITT. We have not up to the present t dividing line as to the classes that we are to take care of.

Mr. OLIVER. How do you apportion the expense? Y they contribute to the expense, and I want to know how portion is ascertained?

Admiral STITT. It is based upon the proportionate patients that they have there, and our expenditures.

Mr. OLIVER. I presume it is based upon the number of that they have in the hospitals as compared with the n have?

Admiral STITT. Yes, sir.

ADDITIONAL MEDICAL OFFICERS NEEDED FOR INCREASE IN NUMBER OF

Mr. OLIVER. Now, assuming that they should themselves of more of your beds than they are n derstand that you will find it necessary to employ it help?

Admiral STITT. We would require 150 medical offi patients.

Mr. OLIVER. Additional medical officers?

Admiral STITT. Yes, sir; additional medical officers.

Mr. OLIVER. How would you expect to employ them, or v would they have in the Medical Corps of the Navy?

Admiral STITT. My idea was that where we could, it w policy to use medical officers now in the Navy, and that plus our number. I have always felt that we should i five one-hundredths of 1 per cent. The war showed get along with sixty-five one-hundredths of 1 per cent.

Mr. OLIVER. This will not always be a continuing will be required to render.

Admiral STITT. That is true.

Mr. OLIVER. I think it would be a mistake to give pointments in the Medical Corps to any large n purely for the purpose of looking after a temporary

Admiral STITT. Yes, sir. I believe, however, it the event Congress reduces the authorized strengtn such a figure that our present 802 officers would in five one-hundredths of 1 per cent to provide a i excess number could be retained in service ins means to furnish temporary appointees.

Mr. KELLEY. You would not be authorized to that.

Admiral STITT. No, sir; except that we are a appoint 25 acting assistant surgeons. At the used in recruiting, and there are 20 vacancies in t surgeons corps. Now, I have taken the matter of the Veterans' Bureau as to their paying ab pointed men. They are not commissioned men.

Mr. OLIVER. That is the information I have been

Mr. KELLEY. That is outside of the \$3 they pay t patients?

Admiral STITT. Yes, sir.

CIVILIAN EMPLOYEES.

Mr. KELLEY. Referring to this \$1,700,000 spent for civilian employees, do you make any large saving in what you had expected to be by reason of the fact that the Veterans' Bureau has paid a part of these expenses?

Mr. STITT. That \$3 has been a credit to the naval hospital fund, but not to the Medical Department. So that this \$1,700,000 is for the civilian employees. Of course, some of that \$3 is really compensation for these civilian employees.

Mr. KELLEY. So that while you might not apply the fund directly, it is available to reduce the amount really required for civilian employees?

Mr. STITT. It would be, except for the fact that the naval hospital fund, sir—we feel we will have about \$200,000, possibly, at the end of this fiscal year, but, for instance, on January 31, 1922, we were overobligated \$2,092,000 in the naval hospital fund.

Mr. KELLEY. Then while it is true that if it were applied it would reduce this amount, yet you have kept it in the other fund because the fund was overdrawn?

Mr. STITT. Yes, sir; and we are afraid we are going to run a deficit in that fund, not this year or next year but in about two years.

Mr. KELLEY. If the Navy is reduced as I stated awhile ago, how much of a reduction do you think could be made in each of these items of \$1,700,000 for your civilian force and \$700,000 for supplies?

Mr. STITT. It would simply be by putting hospitals out of commission or turning them over to the Veterans' Bureau; that would be the only way in which we would save money.

Mr. KELLEY. If the establishment is reduced one-third would you be able to reduce these items one-third?

Mr. STITT. We could not in hospitals, because to keep a hospital up in the way of maintenance, painting, general repairs, and repairing of roofs, etc., is quite an item, and, as you know, at the present time so many of our hospitals—at least three-fourths of the capacity—are in these temporary buildings; they are deteriorating very rapidly and the only way we can keep them in good condition is by spending a good deal of money on them or by the use of civilian employees who are carpenters, painters, and so on, having them constantly at work in repairing these buildings.

Mr. KELLEY. What would you suggest would be a safe reduction of these two items if we reduced the strength of the Navy by one-third?

Mr. STITT. For instance, take the hospital at Great Lakes, where, at the present time, we have 600 Veterans' Bureau patients and only about 65 Navy patients; if that hospital were run by the Veterans' Bureau funds we could save \$188,837.76.

Mr. KELLEY. If they would take it off of your hands entirely?

Mr. STITT. Yes. They are very short of personnel at Great Lakes hospital, and what they are desirous of doing—

Mr. KELLEY (interposing). They do not seem to be short of money which to buy hospitals all over the country, so why can they not take one off of your hands without much trouble?

Admiral STITT. It is full with their patients now—600—are asking us to provide for 400 more; that is, the district there are so many beneficiaries needing it. I was out there a week or so ago and went into the queue we could expand for the Veterans' Bureau from the 1,000 patients.

Mr. KELLEY. If they took the hospital entirely off of then they would have to furnish the doctors and nurses, increase the cost to them about how much per patient?

Admiral STITT. It would mean an increase, I should say, \$1.30 per patient per day; that is, over the \$3 they now. We have figured out the personnel in the different hospital they have a large number of patients, of course, the cost and the cost per patient is smaller, so I think it would be around \$1.30 for the doctors, female nurses, and so on.

Mr. KELLEY. Making \$4.30 in all?

Admiral STITT. Yes, sir.

The CHAIRMAN. That is one of the best hospitals in is it not, and the hospital is in a permanent building?

Admiral STITT. There is a permanent building, sir, but it has only a capacity of about 150. We have different types of ward buildings; they were built the war of wood and they are buildings that will probably 250 contagious cases, for which they were originally in are now using them for the neuropsychiatric patients of the Bureau. However, they are exceptionally comfortable planned ward buildings; they are plastered inside, have them, and except for the fire risk you could not ask for better buildings.

The CHAIRMAN. Are they east of the track or west of

Admiral STITT. They are the ones between the street and the permanent building of the hospital. The buildings on the Great Lakes, on the whole, are about the same buildings.

Mr. KELLEY. This \$3 which you get from the cost of everything, every expense about the hospital except nurses, and attendants?

Admiral STITT. And it includes the civilian cooks, mess attendants, and everything of that sort.

Mr. KELLEY. So that the doctors and nurses are the only ones not counted in this \$3 cost?

Admiral STITT. Yes, sir. But, as I have said transferred to pay of the Navy \$410,000 to pay for Hospital Corps men. On account of the shortage in the Navy the Bureau of Navigation did not feel it necessary for us to enlist any more Hospital Corps men.

Mr. KELLEY. So, in addition to the \$3 the Veterans' Bureau pay you \$410,000 for Hospital Corps men?

Admiral STITT. Yes, sir.

Mr. KELLEY. Can we now get an answer to the question while ago, namely, if we should reduce the Navy by 10 per cent a year, how much could be taken off of these two items?

Admiral STITT. As I said, sir, so many of our

Mr. KELLEY (interposing). Can you make a fi

Admiral STITT. So many of our buildings are these wooden buildings that we have to spend a great deal of money on repairing them and so on, and if we keep that hospital open I really feel we can not save anything. The only thing would be to turn it over to the Veterans' Bureau or let those temporary buildings go.

Colonel ROOSEVELT. In that connection it might interest you to read Admiral Stitt's outline to you or give you an example of the troubles we run into of that kind, particularly the situation with the hospitals we are confronted in Newport; and then, also, Admiral, is not the situation in Chicago complicated by the fact that the Veterans' Bureau does not seem to be able to get psychiatric doctors out there, and we seem to be the people and the only people who can furnish them? Is not that so out there?

Admiral STITT. There are probably fewer specialists of that sort, considering the demands for such men, than any other personnel—physicians, medical personnel—so much so that the Public Health Service has been unable to get sufficient men of that sort, and we have had to draw on the Navy for every man we had who had specialized in psychiatry and put them out at the Great Lakes to attend to the 300 psychiatric patients we have there. One of the troubles we are having with the district supervisor's office, and the only one, I may say from my interviews with them the other day, because they then said "it is the cleanest hospital we have," they spoke of it in the best terms, have the best food, and they have absolutely nothing to complain about except that we have not enough medical officers here, and particularly psychiatrists.

Mr. OLIVER. Coming back to the question asked by Mr. Kelley, I want to know how you will find it necessary to maintain a hospital near every man on the Navy maintains and that if you abandon any it would be a hospital that would be far removed from any permanent station maintained by the Navy, assuming that the Navy might abandon some of its present stations if the personnel is largely reduced?

Admiral STITT. Yes, sir; we abandoned the New Orleans hospital as soon as the station was abandoned.

Mr. OLIVER. So you could not now say what hospitals you might be able to turn over to the Veterans' Bureau for their use and thus save expense to the Navy until you first knew just where the men of the Navy whom we provide for will be stationed?

Admiral STITT. Yes, sir.

Mr. OLIVER. In other words, your action would have to follow the action of the Navy Department in reference to determining what centers of activity would be?

Admiral STITT. Yes, sir.

Mr. KELLEY. You expect to have the \$410,000 supplied by the Veterans' Bureau for the Hospital Corps another year?

Admiral STITT. I expect that to be supplied and the expenses of the Hospital Corps and medical men.

Mr. KELLEY. Of course, the Hospital Corps men are Navy people; they are not civilians?

Admiral STITT. They are Navy people; yes, sir.

SUPPLIES.

Mr. KELLEY. How about supplies? Would they be reduced if the Navy were reduced?

Admiral STITT. Yes, sir. For supplies we are only talking of biologicals, which includes the special diet on ships and at stations. We are talking of biologicals, taking up the statement we have furnished you to \$100,000, and they include such items as serums and vaccines. We have no stock of biologicals on hand; that is, we just buy them and have to send them out, because they must be absolutely fresh. We can never tell about the amount of biologicals which will be required. There may be an epidemic of smallpox, as we had during the last year in Haiti, and so on, which will bring a great demand for biologicals, so I do not think we could safely cut more than \$100,000 for them. It may be we will be fortunate if we can turn back whatever money we do not use, just as we have done this year and the prior fiscal years.

Mr. BYRNES. How much do you expect to spend for supplies this year?

Admiral STITT. It is a matter that depends on how many diseases we have, how much cerebrospinal meningitis we have to deal with, how much vaccination we have to do for smallpox.

Mr. BYRNES. Do you know how much you have spent in the last months?

Admiral STITT. \$67,000 in the first two quarters. We have vaccinated a lot for smallpox on account of its presence in Santo Domingo.

Mr. OLIVER. In making your estimate for next year, are you taking into consideration the hospitals located that you now contemplate will be maintained?

Admiral STITT. I will furnish a list for the record.

(The list referred to follows:)

United States naval hospitals within the continental limits of the United States: Portsmouth, N. H.; Chelsea, Mass.; Newport, R. I.; New York, N. Y.; L. I.; Philadelphia, Pa.; Washington, D. C.; Annapolis, Md.; Norfolk, Va.; Charleston, S. C.; St. George, S. C.; Key West, Fla.; Pensacola, Fla.; Great Lakes, Ill.; Puget Sound, Wash.; San Francisco, Calif.; San Diego, Calif.; total, 16.

United States naval hospitals without the continental limits of the United States: St. Thomas, Virgin Islands; Pearl Harbor, Hawaii; Guam; Cebu, Philippines; Japan; total, 5.

Admiral STITT. There are two reasons why I feel our income is falling off. First, in 1914 it was provided that if a man got court-martialed and discharged all of his fines and forfeitures would be paid to him. If a man was discharged for bad conduct, provided he was court-martialed during his enlistment, one-half of the fines and forfeitures were to be returned to him. The auditor has not seen the books of the fines and forfeitures for a period of four or five years, so we do not know where we stand, but we do know our income will be very much less on account of returns to men who have been discharged on ordinary discharge. Then, Mr. Denby signed some law that is going to further reduce our income from the courts. That is going to the effect that to save "Pay of the Navy," when a man is being court-martialed they were simply to stop his pay rating, which, of course, would have the effect of cutting our income instead of providing for fines and forfeitures, so that we are going to cut our income very much. The Judge Advocate

ot know how much that would reduce our revenues, but he it would reduce them materially.

ELLEY. This fund is dependent very largely on the size of the force?

al STITT. Yes, sir.

ELLEY. So if we cut the force it would cut this fund next year?

al STITT. It goes automatically, sir.

RECEIPTS FROM VETERANS' BUREAU.

ELLEY. How much do you get a month from the Veterans'

MINER. We have received this year \$644,000.

ELLEY. Up to this time?

MINER. Yes, sir.

ELLEY. That is on account, is it?

MINER. Yes, sir.

ELLEY. They do not pay in advance?

MINER. No, sir.

ELLEY. You render your bills and they have paid you that eight months?

MINER. Yes, sir.

HOSPITAL FUND.

LIVER. I would like to have the admiral very briefly state a hospital fund is used to pay and what the fines and for- and is used to pay.

al STITT. We take the amount out without regard to the f income, whether the 20 cents a month or from fines and es.

LIVER. But I mean what are the proper charges against the fund and what are the proper charges against the fines and es fund?

al STITT. They are one thing.

LIVER. Then what are the proper charges?

al STITT. All charges in connection with taking care of our , subsistence, maintenance of the hospitals, with the excep- he civilian employees, who are cared for under the Medical rent, and some minor expenditures under contingent; but ly all of the expenses of the upkeep of our hospitals.

LIVER. Is this fund used to supplement the appropriation to keep the hospitals in operation?

al STITT. As I say, it bears the expense of running the hos- ith the exception of the appropriation for the civilian em-

ELLEY. We do not make any appropriation for repairs?

al STITT. No, sir. We have asked you for two years to about \$350,000 for repairs, but your committee thought it e best to let the hospital fund bear that expense.

ELLEY. Coming back to the question I asked a while ago, ,000 which you have received is at the rate of \$1,104,000 for . Now, about what balance did you have on hand in the fund on the 1st of last July, or whatever date you may have?

Admiral STITT. On January 31, 1922, it showed an of \$2,092,639.09; at the present time we know, from the matter, that the overobligation is only \$1,690,919.32.

Mr. KELLEY. Leaving the overobligation end of it I am not quite clear in my mind what you mean by tell us how much money you had on hand on the 1st of this fund. Doctor Gibson, you can tell us that, can you?

Doctor GIBSON. No; I do not recall the Treasury balance overobligations were more than \$1,600,000.

Mr. KELLEY. Can you estimate, in the absence of accusation, and then put it in accurately? I would like to know at this moment.

Mr. JOINER. The Treasury balance was \$314,098.00.

Mr. KELLEY. That was the Treasury balance in the date?

Mr. JOINER. Yes, sir.

Mr. KELLEY. If you augment it by \$1,104,000 you have \$1 in this fund for this year?

Mr. JOINER. Yes, sir.

OVEROBLIGATIONS.

Mr. KELLEY. Tell me what you mean by "overobligated."

Admiral STITT. That we are that much in debt.

Mr. KELLEY. To whom?

Admiral STITT. To "General account of advances," have against the \$1,690,000 over \$2,000,000 which will the fines and forfeitures when they are eventually taken up if the Treasury should square our accounts we would time be approximately \$400,000 to the good.

Mr. KELLEY. What do you use this fund for?

Admiral STITT. It pays for all provisions that are needed; it pays for the coal, for the lighting and the electrically every expense at a hospital, except we have in it a small appropriation for the care of the grounds, seed and flowers, and caring for the trees, and thus on.

Mr. OLIVER. Does it pay for medical supplies and medicines?

Admiral STITT. The medical supplies and surgical instruments drawn from this Medical Department fund, sir.

Mr. KELLEY. Let me get this straight. The overobligation we speak of is a Treasury account?

Admiral STITT. It is a Treasury account; yes, sir.

Mr. KELLEY. You have paid the bills?

Admiral STITT. Bills were paid to the extent that then others are outstanding to the extent of \$5,260,000; the balance in the Treasury is \$1,538,472.10. These are these others—credits to fund not settled by a balance and estimated credits which have not yet been paid \$651,683, making \$3,569,080.

Mr. KELLEY. All these over obligations are cumulative from the war and back for some little time—they are not new obligations, are they, since you have been in office?

Admiral STITT. No, sir; they have been coming.

Mr. KELLEY. And undoubtedly they have been in the "General account of advances of the Navy"?

ctor GIBSON. Yes, sir; that money is all due to the general account of advances.

Admiral STITT. Although there is no appropriation.

KELLEY. I understand it now.

BYRNES. You have obligated to the extent of \$5,250,000?

Admiral STITT. No, sir; as it stands on the 31st of January our obligations are \$1,690,919.

BYRNES. Does that include the amount which you estimate you get from fines and forfeitures?

Admiral STITT. That amount is in course of settlement by the War Office. We feel that we have at least \$2,000,000 which is in the War Office's office, but has not been adjusted.

BYRNES. When will you know that?

Admiral STITT. As I understand, for some of those accounts, it is from three to five years.

BYRNES. That is rather hopeless. You believe if they would you would have enough to pay these obligations?

Admiral STITT. And probably \$500,000 more.

BYRNES. Upon what do you base that belief?

Admiral STITT. We base that from knowing the amounts that have flowing in from fines and forfeitures in the past.

BYRNES. And judging from that, you believe that you have been able to leave you a net balance of \$500,000?

Admiral STITT. Yes, sir.

BYRNES. But there is no chance of your ascertaining the total amount to which you are entitled from fines and forfeitures because of delay in auditing?

Admiral STITT. They say that it will, perhaps, be a year and a half before they are a little more rapid in the auditing now.

KELLEY. You will have \$268,925 on the 1st of July in cash?

Admiral STITT. Yes, sir.

KELLEY. If you take in \$1,104,000, that will give you \$1,327,000, which this fund will have during the year?

JOINER. More than that, because we get an estimated revenue of \$7,000 from the 20 cents, and we also get the fines and forfeitures transferred.

Admiral ROOSEVELT. That estimated revenue per month is based upon how many men?

JOINER. On the actual number of men in the service.

KELLEY. That will hold good up to the first of July or thereabouts. What would be your estimate of the total revenues for this year or the year?

JOINER. \$1,200,000 in addition to that.

KELLEY. In addition to what?

JOINER. \$1,679,000.

KELLEY. Where is that coming from—fines and forfeitures?

JOINER. Yes, sir.

KELLEY. During the year you will have \$2,879,925 out of which you are to care for your buildings and such repairs as you have to make; pay for all of your operating expenses exclusive of the pay of the Navy?

Admiral STITT. Yes, sir.

JOINER. And the civilian employees.

KELLEY. What does it include?

Mr. BYRNES. Did you spend \$50,000 for that purpose?
Admiral STITT. \$25,000 for books, \$24,000 for stationery the binding of journals, \$1,000.

Mr. BYRNES. In other departments we have found make a reduction in the stationery for the next fiscal year of the reduction in the cost.

Admiral STITT. We have been writing and writing—

Mr. JOINER. The hospitals have been spending \$1,000 to \$1,500 a quarter for stationery, and we reduced it.

Mr. BYRNES. I know that in the hearings upon the Interior bill we had the representative of the Printing Office will remember—and he told us as to stationery that we were justified in figuring on a 15 per cent reduction, as I recall.

Mr. FRENCH. Yes; that is right.

Mr. JOINER. We have made almost a 30 per cent reduction in the stationery we were spending before.

Mr. BYRNES. The year before; but what are you spending this year—\$50,000?

Mr. JOINER. We are not spending \$25,000 for books. We are spending more for stationery and less for books.

Mr. BYRNES. How much for stationery?

Mr. JOINER. \$35,000 for stationery and \$15,000 for books.

Mr. BYRNES. And you propose to spend more for books this year?

Mr. JOINER. Yes, sir.

Admiral STITT. We can save on one item in this continuing bill and in another item we are obliged to spend more money.

Mr. KELLEY. You have reduced the estimate \$65,000 in the appropriation last year?

Admiral STITT. Yes, sir.

Mr. KELLEY. You have some new language, the item "remains of officers?"

Admiral STITT. Yes, sir.

BRINGING HOME REMAINS OF OFFICERS, ETC.

Mr. KELLEY (reading):

The unexpended balance of the appropriation "Bringing home the remains of officers and crew of the Navy, 1921-1922," contained in the naval appropriation bill for the fiscal year 1920, or so much thereof as may be required, and for the same purpose in the fiscal year 1921, is continued and made available for the fiscal year ending June 30, 1922.

How much of a balance is there in that fund?

Admiral STITT. \$206,396.20.

Mr. KELLEY. That is the Treasury balance of this fund?

Admiral STITT. Yes, sir.

Mr. KELLEY. That is as of January 1. How much of that will you spend out of that by the end of the year?

Admiral STITT. About \$65,000.

Mr. KELLEY. You are asking us to reappropriate \$141,396.20?

Admiral STITT. We put in reserve \$67,222.

Mr. KELLEY. You want that reappropriated?

Admiral STITT. Whatever balance may remain over the appropriation for the fiscal year 1922 amounts to about \$65,000.

Doctor GIBSON. You made no appropriation last year, you just continued it for a year.

YARNES. \$65,000 not considering the \$67,000 which we have reserved.

ELLEY. Where is that?

YARNES. That is in the Budget.

YARNES. You had a total of \$65,000 and \$67,000. How about \$67,000 put in reserve; how do you arrive at that figure?

ELLEY. They just asked what we could safely put in the reserve.

YARNES. What became of the \$67,000?

ELLEY. It will go back into the Treasury.

YARNES. Will it go back?

ELLEY. We have felt that that amount was returned to the Treasury.

YARNES. I hope you are right. There will be \$65,000 still reserved on July 1?

ELLEY. Yes, sir.

ELLEY. Do you need this \$65,000 next year for that purpose?

ELLEY. We can never tell. There may be an epidemic in Manila and a lot of deaths there.

ELLEY. What was the usual amount appropriated for this purpose prior to the war?

ELLEY. Before the war, \$32,658.

ELLEY. Probably transportation is a little higher?

ELLEY. It is. When we send the body of a man who dies at our hospitals 500 or 1,000 miles or even across the country we have to pay all the expenses.

YARNES. Your expenditures are higher now?

ELLEY. Yes, sir.

YARNES. You want \$65,000 to be reappropriated?

ELLEY. Yes, sir.

YARNES. And let the rest go back into the Treasury?

ELLEY. Yes, sir.

CARE OF HOSPITAL PATIENTS.

ELLEY. The next item is, "Care of hospital patients." We have \$100,000 for this year and how much are you asking for next year?

ELLEY. \$85,000.

ELLEY. That is for hospitals other than naval hospitals?

ELLEY. Yes, sir. We are paying the Army for the care of naval tubercular cases in their hospital at Fitzsimmons, near San Francisco, varying amounts, about \$3.10 a day.

ELLEY. What is the monthly expenditure for this running

ELLEY. It is not very high just now because we only have 5 patients there at the present time, but any one entering the service after the 9th of February does not come under the War Compensation Act, so that we will have to take care of those who we can not turn them over to the Veterans' Bureau for \$80 a month, hospital care—they do not come under that—so the Navy has to bear the cost of treatment of those people entering the service after February 9. Pensions would be open to them, but the

pension has been rather small and has not been sufficient to a man with tuberculosis. Of course, the War Risk compensation at present is \$80 a month for total disability plus hospital. We feel that he is better off under the Veterans' Bureau. We can no longer turn them over to the Veterans' Bureau; we feel we must keep those men for a reasonable time and give them an opportunity to get in good condition.

Mr. KELLEY. You do not intend next year to have any tuberculosis hospital of your own?

Admiral STITT. No, sir.

Mr. KELLEY. Those patients from the Navy not eligible for admission into the war risk hospitals must be carried in this appropriation.

Admiral STITT. Yes, sir.

Mr. KELLEY. How many will there be?

Admiral STITT. That depends on the amount of recruitment in February 9, when the Sweet bill stopped the benefits. Looking subsequent to that time we will have to look after it on the amount of recruiting and the development of it. Also if a man on detached duty or recruiting or anything or is taken ill we put him into a civil hospital, provided there is a hospital near, and that hospital may charge \$5.50 or \$6.

Mr. KELLEY. Have you any idea how many there would be of this kind?

Admiral STITT. No; it would be impossible to estimate, it is like an epidemic.

Mr. KELLEY. That is why we carry an item like this?

Dr. GIBSON. It runs up pretty high. There were 3,000 guards out with the mail. They were scattered all over the States. Wherever injured or sick and hospitalized we had to pay out of this appropriation.

Mr. KELLEY. Did we have a fund for this purpose before the war?

Dr. GIBSON. No, sir; it originated in the war.

Mr. KELLEY. You think we will have to carry that item?

Admiral STITT. Yes, sir; particularly in the case of tuberculosis patients.

Mr. KELLEY. Because you have no tuberculosis hospital?

Admiral STITT. Yes, sir.

Mr. KELLEY. These are in hospitals other than those maintained by the Navy?

Admiral STITT. Yes, sir.

Mr. BYRNES. Have you any arrangement as to what you will do?

Admiral STITT. The Army has a fine, large hospital which is larger than they need, and they say they need us 200 beds in that hospital. We would have a tuberculosis hospital had it not been that the Army has plenty of room for both services.

Mr. FRENCH. Generally speaking, where you have hospitals of this kind in connection with either the Army or the Navy Bureau hospitals?

Admiral STITT (interposing). So far it has only been tuberculosis.

CASE IN SALARY OF CHIEF CLERK BUREAU OF MEDICINE AND SURGERY.

KELLEY. The next item is "Salaries, Navy Department," you want to increase the salary of the chief clerk from \$2,250,250. I may say, Admiral, the Appropriations Committee had understanding that no salaries should be increased in any of these this year, so we might just as well pass that by. We do that as departments so as to make it uniform. There is a sort of adjustment of salaries going on.

Admiral STITT. This was a matter which was taken up in the oil hearing, as I understand it, for the salaries of the chief clerks of the various bureaus of the Navy Department to increase their pension about \$1,000.

KELLEY. I have not any doubt as to that.

BYRNES. If any salaries are increased your recommendation be given careful consideration.

Admiral ROOSEVELT. It is justified, I know.

KELLEY. We want to treat all departments equally, and with classification bill coming on we thought we would not interfere these salaries pending that.

TEMPORARY EMPLOYEES.

KELLEY. The next item is for temporary employees. Your next appropriation for this purpose is \$40,000, and your estimate asks to be \$37,000.

Admiral GIBSON. The appropriation is \$40,000 this year and the estimate for next year is \$37,000.

KELLEY. If the Navy is reduced, will it not be possible to reduce this amount a little?

Admiral STITT. Mr. Chairman, we are handling the records of 800,000 people of the war period in our bureau. We are doing same work in the bureau of Medicine and Surgery that the Assistant General's office is doing in connection with the men who died in the recent war, so that our main work, or three-fourths of the work of our bureau, is connected with claims, or the furnishing of medical records in connection with claims for compensation. We have been able to answer those calls for medical records solely by things that we had not the right to do, but we had to do it because we knew if we did not furnish those medical records upon which they based claims for compensation, it would mean a delay of three or four months. Therefore, we put in Hospital Corps men to

We put in five Hospital Corps men, and we told the Veterans' Bureau that we could not furnish the records promptly, but they said "You must give us those records that furnish the information away." We have had six of their clerks, and, in addition to that, we have vocational training people there to assist in the work. We have really had about a dozen clerks more than we are supposed to have.

KELLEY. There was a temporary necessity for it, and the temporary necessity is still in existence?

Admiral STITT. Yes, sir.

Mr. KELLEY. Since it is necessary to supply these men to the Veterans' Bureau, I suppose you could not get also next year?

Admiral STITT. Absolutely not.

Mr. KELLEY. Is there anything else you wish to say to mittee?

Admiral STITT. I think it would be interesting to show amount we have spent for things that really are not exactly Navy, but there is no way to avoid it.

Mr. OLIVER. You have to do a certain amount of mission

Admiral STITT. Yes, sir; missionary work. For instance, w last year \$96,826.31, or nearly \$100,000, for medical and supplies in Haiti and San Domingo.

Mr. KELLEY. For the people there?

Admiral STITT. Yes, sir. We have talked the matter over Secretary, and he says that we should do everything we can.

Mr. KELLEY. That is to prevent the spread of disease?

Admiral STITT. Yes, sir. They are absolutely ind have not a cent of money, and it is humanitarian v applies particularly to the outposts that are well away in part of the country.

Mr. BYRNES. Out of what fund do you get that money?

Admiral STITT. It is paid out of the Medical Depa priation.

Mr. KELLEY. I suppose you do that upon the theory that preventing the spread of disease among our own people?

Secretary DENBY. Yes; we have the responsibility, and protect them. We must prevent the spread of contagio

Mr. KELLEY. We are very much obliged to you, Admiral statement.

TUESDAY, MARCH 14,

NAVAL ACADEMY.

STATEMENTS OF REAR ADMIRAL HENRY B. WILSON, INTENDENT, UNITED STATES NAVAL ACADEMY; COMMANDER I. C. KIDD, AID; AND COMMANDER T. J. MANN, CHIEF OF SUPPLY CORPS.

Mr. KELLEY. We have with us this afternoon the of the Naval Academy, Admiral Wilson, and his staff. We will be glad to have you make any general statement you would like to make about the academy before we take of the academy in detail.

Admiral WILSON. Mr. Chairman, I assumed duty tendent of the Naval Academy on July 5, 1921, and have not much to do with making up the estimates for the year but since that time I have given careful attention to the Naval Academy, have gone over the estimates, and have the amount as proposed in the Budget, and, in summary, of the Naval Academy, I am prepared to state to you the several heads which I think are necessary, have the upkeep of the Naval Academy and the need for such

FOR GRADUAL REDUCTION IN NUMBER OF STUDENTS ENTERING.

r. KELLEY. In considering the situation at the academy, I suppose you have assumed that there will be no change in the number of midshipmen who will enter this coming year?

Admiral WILSON. Yes, sir. I have considered that the number entering this year would be in accordance with the present law, as all appointments have probably been made by now; but I have also in mind what might come in the future, that is, a possible reduction.

r. KELLEY. But that will not affect the appropriations for this year?

Admiral WILSON. It affects them to the extent that I would rather have a gradual reduction by reducing some this year than to have it as a sharp reduction, which would mean the same thing, next year.

MAKING ENTRANCE REQUIREMENTS MORE STRINGENT TO REDUCE CLASSES.

r. KELLEY. Your idea might be to make your entrance requirements for new classes a little heavier this year?

Admiral WILSON. We are not able to make the entrance requirements—

r. KELLEY (interposing). I mean the physical tests.

Admiral WILSON. We are not able to make the scholastic requirements firmer this year on account of the papers having gone out, but it is the intention of the academic board to be a little more strict in their recommendations as to who shall come in. For instance, in the past they have admitted young men to the Naval Academy with deficiencies in one subject provided they have been extra good in other subjects. In passing upon those for the February examinations the other day, the academic board, looking to the future and to the reduction that will probably come soon, and wishing the reduction to be gradual, was very strict in passing candidates.

r. KELLEY. So that, as a result of observing a little greater care in the entrance tests, you expect to reduce the fourth class somewhat?

Admiral WILSON. Yes, sir, the coming fourth class.

r. KELLEY. But probably not enough to make a great deal of difference in the expenses of the Academy for the year?

Admiral WILSON. Not sufficient to make a marked difference, for the reason that the academy is now running over the number that it has regular accommodations for. For instance, Bancroft Hall will accommodate for 2,042 midshipmen living two in a room, that being the number for which the hall was designed, but lately we have, by putting three in a room and in the larger rooms four, carried the number to 450. For the maintenance and upkeep of the place, there will be required the same amount for Bancroft Hall, and even if the number is reduced to the regular number of 2,042, there could not be much expense for maintenance, repair, and upkeep.

r. KELLEY. That is, you will just reduce the number to the non-accommodations?

Admiral WILSON. Yes, sir. The part where the reduction be made in the Naval Academy, due to a smaller number of shipmen, would be in the pay and rations, which is not a part of the Naval Academy estimates. I also think that we can get some of the teaching staff.

Mr. KELLEY. You have made no changes in the salary estimates?

Admiral WILSON. As I remember the estimates, there is and that is in the case of the organist and choirman. I have two other cases that I might mention at this time, but I will not give your consideration to them when you come to them, as they involve small amounts.

Mr. KELLEY. So that the amount asked for for pay of is on the same basis as last year, practically?

Admiral WILSON. Yes, sir; the estimate is the same. I have brought this question up, I will state that I believe the estimates could be radically reduced.

Mr. KELLEY. We will take that up when we reach it item of pay of professors.

Admiral WILSON. Yes, sir, then or now.

Mr. KELLEY. Are there any other items you have in call for increases?

SALARY INCREASES FOR PHYSICAL INSTRUCTORS.

Admiral WILSON. Yes, sir. Since I have been in the Naval Academy there is one thing that has made a great improvement—so much so, that I probably would like to dwell on it a few minutes. That is the case of the instructors in physical training. At the present time, the estimate for instructors in physical training is \$26,700, with each man's pay itemized. These instructors do much for the Naval Academy—much more than I had any idea of before I came there. They are leaders to the midshipmen in a way that is most satisfactory. I want to have the instructors in physical training grouped under "Pay of instructors in physical training," with an estimate of \$9,800 in the amount, making the total \$36,500, and with pay for me to reorganize the department. I am quite sure the Government gets back from these men many times their cost in here, through their developing the youth of the Naval Academy. While on this subject, I would like to say that the supervision of the physical training at the Naval Academy is not done by the Government. Our coaches in baseball, basketball, and some other sports are paid for by the Naval Athletic Association. It amounts to quite a sum. The men I refer to are there every day of the year. They not only put them through the regular schedule of exercises, but they take them in the voluntary exercises, and of the 2,300 midshipmen at the Naval Academy at the present time there are over 1,800 in instruction through some form of special sports, to give, not only the scheduled hours to the schedule, but they give outside hours to them. This suggested increase, I am sure, would enable me to increase the value of the instruction very much.

Mr. KELLEY. How many extra men would that employ?

Miral WILSON. It is not so much a matter of extra men as it is arrangement. It involves the same number of men, but I hope we have one civilian whom I would call the associate director. He would be an associate to the officer we have in charge. Then we would have 2 assistants and 11 others, their pay being \$3,900, \$3,100, and

Mr. KELLEY. Let us see what your present organization is for instructors in physical training. What was it in 1921?

Miral WILSON. One sword master at \$1,900, one assistant at \$1,500, one assistant at \$1,500, a head master in physical training at \$2,100, instructors in physical training—one at \$2,100, two at \$2,000, and seven at \$1,900.

Mr. KELLEY. Now, what is it that you want to do?

Miral WILSON. I want to have 1 associate director at \$3,900, 2 assistants at \$3,100, and 11 assistants at \$2,400, which would mean an increase of \$9,800. In order to balance that, I have several reductions that would many times over compensate for that increase for physical training.

Mr. KELLEY. The amount of this paragraph last year was \$161,600. How much are you asking for this year?

Miral WILSON. Taking the item of pay of professors, Naval Academy, when I go through the estimates I will recommend \$258.34 for the total under the heading "Pay, Naval Academy."

Mr. KELLEY. The increase you propose on account of instructors in physical training is how much over the present pay?

Miral WILSON. \$9,800.

Mr. KELLEY. You want to strike out the word "men" and insert the word "man"?

Miral WILSON. Yes, sir. I do not know what brought that up, but I presume that change was suggested by the former superintendent.

Mr. KELLEY. I take it that would not be important.

Miral WILSON. No, sir.

INCREASE OF SALARY FOR CHOIRMASTER AND ORGANIST.

Mr. KELLEY. You want to increase the salaries of the choirmaster and organist at chapel from \$1,700 to \$2,400?

Miral WILSON. Yes, sir; the increase for the choirmaster and organist at chapel is because we require an efficient man and one whose services may be utilized in teaching the midshipmen music in mass singing, so that they may take it with them to the fleet, wherever their services may be utilized, for the benefit of the colored men. The present salary of \$1,700 is not sufficient to get a man suitable for this work, and therefore an increase to \$2,400 is needed.

INCREASE OF ESTIMATES 1923.

Mr. KELLEY. What is the sum total of your request for this paragraph?

Miral WILSON. Mr. Kelley, the first paragraph, which is the first one of all, has not been considered.

Mr. KELLEY. Last year you had \$161,600 for these in the second paragraph. How much of an increase are you asking for this year, including the physical instruction you have asked for?

Admiral WILSON. \$172,100.

Mr. KELLEY. That is an increase of \$10,500 under the second paragraph?

Admiral WILSON. Yes, sir.

Mr. KELLEY. We will go back to the first paragraph which includes the pay of professors and others. Last year you asked for \$161,600 and how much are you asking for next year?

Admiral WILSON. \$392,850. That estimate was prepared before I came to the Naval Academy.

Mr. KELLEY. That is an increase of \$7,850?

Admiral WILSON. Yes, sir.

Mr. KELLEY. Are you changing the request?

REDUCTION OF INSTRUCTORS.

Admiral WILSON. You asked me a short while ago whether I had the ability to change this appropriation, and I feel it could be changed to a very large extent without interfering with the interests of the Naval Academy. I would not advocate all officer instructors at the Naval Academy any more than I would advocate all civilian instructors. We need some of both to balance the work, but the proportion at the present time, about equal in number, does not, in my opinion, combine efficiency and economy. For this reason, and in view of the probable reduction in the number of appointments at the Naval Academy, I suggest, in accordance with your question, that the sum for "Pay of professors and others, Naval Academy," etc., be reduced at least one-half of the estimate. This is a step toward bringing the proportion of officer instructors to what obtained before the war, and a further step would not be hurtful to Naval Academy interests.

USE OF NAVAL INSTRUCTORS IN PLACE OF CIVILIAN.

There is much to be said in favor of using naval officers as instructors at the Naval Academy. In many ways they are an excellent normal school. The routine duties required of naval officers involve a good deal of teaching. Success in this profession depends in a considerable degree upon the capacity to teach. The advance of naval science, the rapid processes of change and improvement, demand that officers be able to grasp new ideas and to instruct subordinates. The shifting enlisted personnel and there are always recruits, new duties and to be instructed in the operation of machinery.

Officers themselves frequently do not appreciate the value of which their naval experience fits them to become instructors at the Naval Academy. It has not been uncommon for an officer on his first tour of shore duty at Annapolis, to find himself on a subject from a new textbook quite different from what he studied when a midshipman. An officer so placed among professors who have devoted years to specializing in a subject is first inclined to depreciate his ability to teach.

ed with obstacles, but, in accordance with his naval training, and his energy to overcome them. Then he usually discovers the difficulties had been somewhat exaggerated in his own mind, that he had not appreciated the extent to which experience afloat fitted him to become an instructor of midshipmen.

A important advantage that a naval officer has over a civilian is that, by virtue of rank and experience, he is in a more favorable position to present incentives for midshipmen to learn well subject matter set before them. Even in nontechnical subjects value of an essential point can often be illustrated by some apt allusion to service life. Whether the subject is physics, history, or natural science, midshipmen feel that illustrations and explanations of facts are backed by experience with ships and men. As I see it, success in teaching hinges to a great extent on ability to inspire midshipmen with ambition to learn, and I believe that officer instructors have a knack for doing this.

The mission of the Naval Academy is not to produce intellectuals or scholars but intelligent naval officers, with healthy minds in healthy bodies. Moral, mental, and physical training go hand in hand. The intellectual side is not neglected, but character building receives particular stress. Discipline and drill are so interwoven with the academic work as to be part and parcel of it. Here again the experienced officer has the advantage over the civilian instructor. The officer knows the service, realizes that the midshipmen of to-day are his brother officers of to-morrow, and therefore contributes to the Academy work an understanding, cooperative effort which can be paralleled by few civilian instructors.

A criticism has been made that "it is a pathetic sight afforded by the officer instructor who burns the midnight oil to keep one day ahead of the lesson which his class is to recite." The inference to be drawn from this is not quite fair. Granted that, for his first year at least, the officer instructor does have to study his lessons with diligence, it does it necessarily follow that his teaching is of inferior quality? Textbook lessons assigned are plenty long enough and contain all that the average midshipman can be expected to absorb with thoroughness.

I have heard it said that the officer who has to study along with his class is likely to concentrate on the lesson assigned and make use of his experience and judgment to drive into the heads of the midshipmen the essential points in the lesson, whereas the professional teacher, being much more familiar with the subject, is likely to underestimate the difficulties with which the student has to contend instead of clearing them up, may easily be led to elaboration, introducing complexities which leave the student impressed with the inferior knowledge of his teacher, but more confused than ever as to what the lesson is about. It is not unnatural that enthusiasm in a subject should sometimes lead a teacher to go over the heads of his students. I do not wish to undervalue the stimulation afforded by direct exposition from a scholar, but I wish to make the point that this is not always an unmixed good, and that the less exhaustive knowledge of his officer instructor is not always an unmixed evil.

It has also been said that we are old-fashioned in our methods at the Naval Academy. In some respects this is frankly admitted. It does not mean, however, that our minds are closed to new ideas. We are constantly on the lookout for new ideas, and adopt them when

we are convinced that they are good. But we believe it is proud of the high standing the Naval Academy has as an educational institution, and we do not propose to kick maturely the ladder by which the academy has mounted its enviable position. For example, the method of teaching the "direct method" aims to supply knowledge in a sort of form, which can be assimilated by the pupil without effort. We do not use this method to any great extent at the Naval Academy. We believe in the old-fashioned way—"We learn by doing"—embryo officers will continue to fit themselves for future work by doing a lot of "hard digging" during their four years at the Academy. We try to give the incentive, point the way, and help them through the hard spots, but conscientious work on their part is required to reach the goal.

NUMBER OF INSTRUCTORS—CIVILIAN AND NAVAL.

Mr. KELLEY. How many professors and instructors have you together at the academy?

Admiral WILSON. We have 118 civilian instructors and the same number of officer instructors.

Mr. KELLEY. What do you think should be the right number of civilian instructors?

Admiral WILSON. Before the war we had about thirty civilian instructors to one civilian instructor. I think that if the number were cut to about \$150,000 or \$140,000 from the amount we have at the Naval Academy we could have the best of what we want and have ample civilian instructors to keep the balance. The Naval Academy would not suffer in the least, and that number of officer instructors and civilian instructors would be sufficient.

Mr. KELLEY. That would mean you would have to let the civilian instructors go at the end of the year?

Admiral WILSON. No, sir; I think we would have to let them go.

Mr. KELLEY. I was just thinking of the possible expense involved in letting so many go at once.

ADVISABILITY OF REDUCING NUMBER OF CIVILIAN INSTRUCTORS.

Admiral WILSON. The civilian instructors came into demand during the war when officers were doing other work and could not be obtained, and I think, as we are after economy and efficiency, that we could save a quarter of a million dollars. I do not think it would hurt the efficiency.

Mr. KELLEY. And you do not think it would be an expense? You think there is plenty of time left so that the positions elsewhere? I was just thinking whether there would be ample notice of the change in policy.

Admiral WILSON. Of course, my personal feelings are in favor of the professors and instructors at the Naval Academy. I do not want to see any of them lose their jobs, but I was speaking strictly as the superintendent of the Naval Academy in coming before you, who are representing the Naval Establishment. It is my thought that a quarter of a million dollars could be saved.

Mr. KELLEY. By using about the same number of civilian instructors?

niral WILSON. Yes, sir. It is very probable that we would use less officers to take the places of the professors who go out.

FRENCH. That would be caused by the diminution in enrollment.

niral WILSON. No, sir; it would be because the officers at the Academy can be utilized to more advantage than the professors—they can teach more than one subject if necessary, and they are utilized in the drills.

FRENCH. What period of contract have the professors there? Are they employed from year to year?

niral WILSON. Some time ago they were given appointments stating that they were appointed for a certain length of time, but I understand that is governed entirely by the appropriation of funds.

BYRNES. You think you would have no trouble in getting officers who would make good instructors?

niral WILSON. No, sir. Just now, when we are thinking about organizing our officer personnel until we know there is going to be no trouble, it would be a very profitable way to use their services.

BYRNES. I think so, too, if you have no doubt about securing competent men; but a good officer may not be a good instructor.

niral WILSON. Mr. Byrnes, we have very little choice about who shall come to the Naval Academy as instructors. If he is an officer in the Navy and his services are available, he is sent to us, and we have not first pick of the men in the Navy who come to the Academy as instructors.

BYRNES. Who does select them?

niral WILSON. When the Bureau of Navigation finds officers becoming available on account of detachment from sea duty, they send their names to me. I pass on them, and I pick any one, unless I see something in his makeup which I know personally would not be to be associated with the midshipmen.

BYRNES. You will no doubt agree that it is not every man who has received an education that possesses the gift of imparting knowledge to others.

niral WILSON. Yes, sir; at the Naval Academy we have to agree that to a large extent—that any man who is a commissioned officer and who has gone through the Naval Academy is good material to bring back to teach the midshipmen. Although he may not be the best teacher compared with some civilian instructor, in fact he delivers as much education to the midshipmen as one who is just trained in scholastic work, because there are more things in teaching him his lesson that the officer has to teach a midshipman.

KELLEY. It has been my understanding that these civilian instructors were employed through an oral contract, or some sort of understanding, that they should remain five years if they were satisfactory.

niral WILSON. Well, sir, I do not look upon that as a contract in any way. I look upon it like this, that you say to him if he engages himself and delivers the proper efficiency there will be no objection to disturb him for a certain length of time. Of course, I know that their tenure of office is in accordance with the appropriations by Congress.

Mr. FRENCH. What would be the decrease on the number of midshipmen you will probably have next year?

Admiral WILSON. I do not think there will be any more in the number of midshipmen, because probably the same will come in; but I think there will be a moderate decrease. The fact that we must be less kind-hearted in carrying out our duties is not entirely efficient. In the past we have been asked by persons to give this man another show and give that show, but now that it is the wish of Congress to cut the Naval Academy, I do not think we will have as many recruits on that line.

Mr. KELLEY. About how many of these civilian professors probably leave, anyhow?

Admiral WILSON. I doubt if any would leave, sir.

Mr. KELLEY. It is your opinion, Admiral, that the academy would not suffer at all if the percentage of officers increased, and the only element that enters into that is whether or not a little more notice might not be given to the civilian instructors to get out of the positions?

Admiral WILSON. Yes, sir.

Mr. KELLEY. Mr. Secretary, I should like to have you go to the recommendation of Admiral Wilson to reduce the civilian instructors by from 33½ per cent to 50 per cent, and put them with officers at the academy for the coming year.

Secretary DENBY. I would approve that suggestion.

Mr. FRENCH. In the event of the reduction of the number in the academy, what ratio would the reduction of the faculty bear to the reduction of the students, and would it bear the same ratio or some other ratio?

Secretary DENBY. I understood there would not be a reduction.

Mr. FRENCH. I do not know. I am simply asking you, putting it in a hypothetical way, so in the event of a reduction.

Admiral WILSON. Yes, sir; it would be about the same. That it would be gradual, due to the fact that the older line of subjects to learn and that the older courses in technical subjects which require officers entirely to the exclusion of civilians.

Mr. FRENCH. And probably in the more advanced courses the teacher would not have as many pupils?

Admiral WILSON. No, sir. I think the number of pupils per instructor would be about the same. It averages anywhere from 10 to 14, according to the number of instructors.

POSSIBLE RESIGNATIONS OF STUDENTS.

Mr. BYRNES. Is there any disposition on the part of the upper classes to resign from the academy that they will not be commissioned?

Admiral WILSON. No, sir; I think every one of them is going to stay at least to get his diploma.

Mr. BYRNES. How about the next class?

Admiral WILSON. I think the other ones hope to stay at a change of heart before the time comes for them to leave.

Mr. BYRNES. I asked that question because I have known of a man whose son was at the academy, that in

he senior class was devoted to navigation to a greater extent than the other classes, that his chance of securing a commission was good, and that it would be advisable to resign.

Admiral WILSON. I think any young man who has entered the navy and leaves it because he is not going to get a commission is a great error. What he learns at the academy is good wherever he goes, and he gets a wonderful physical training outside of what he may retain from the books.

AMOUNT SAVED BY REDUCING NUMBER OF CIVILIAN INSTRUCTORS.

KELLEY. Do you know, Admiral, how many of the civilian instructors at the academy are married men?

Admiral WILSON. I think the majority of them.

KELLEY. You do not know offhand, I suppose, whether they come from Annapolis?

Admiral WILSON. I think most of those to be retained would be those who have families and homes. That is, those who at the academy contribute to the academy other than their teaching. We have instructors who help in athletics, who help in the entertaining, who help in our Naval Academy work. They give them to other work besides their regular required routine work, and usually those men would be the ones that the academy would want to keep, and also the academy would give attention to the length of their service.

KELLEY. You could administer this in such a way that those who have homes there, if they were to be let go, would have a little more time to get ready for the change?

Admiral WILSON. Yes, sir. It is the desire of mine not to hurt anybody.

KELLEY. If you carry out this policy you can reduce the estimate from \$385,000 to what?

Admiral WILSON. \$150,000, I said.

KELLEY. Instead of \$385,000?

Admiral WILSON. Yes, sir.

DEPARTMENT OF ORDNANCE AND GUNNERY.

KELLEY. The next item is "Department of Ordnance and Gunnery"; do you recommend any change there, Admiral?

Admiral WILSON. Yes, sir; I recommend a reduction there. The estimate for the last year was \$20,658. This year we propose \$19,300.56, a rearrangement of the estimate, going through it and working it over.

KELLEY. That is just a small sum, due to readjustment?

Admiral WILSON. We are saving a little on the readjustment of the tails and also the 5-day week.

KELLEY. By a rearrangement?

Admiral WILSON. By a reduction to the 5-day week, and a re-arrangement of the pay schedule, etc. That is a reduction of \$1,357.44.

DEPARTMENTS OF ELECTRICAL ENGINEERING AND :

Mr. KELLEY. The next item is "Departments of neering and Physics."

Admiral WILSON. The sum we have reduced is \$1,468.84 the total we want \$17,962.20.

Mr. KELLEY. To what is that reduction due?

Admiral WILSON. To the same thing, the rearran wage schedule and the 5-day week.

Mr. KELLEY. What do you mean by the 5-day week?

Admiral WILSON. We are only working five days a we

Mr. KELLEY. There is a reduction and you would think would make an increase?

Admiral WILSON. No; they only get five days' pay.

DEPARTMENT OF SEAMANSHIP.

Mr. KELLEY. The next item is "Department of Sean

Admiral WILSON. There is nothing I can recomm would like to have that sum. \$8,188.08, as it is.

Mr. KELLEY. What craft do you require down there for

Admiral WILSON. We have reduced our craft and e absolutely to a minimum. I received a letter from Bureau of Navigation the other day commending us for of the enlisted personnel. We have a receiving ship; we motor boats, subchasers, which take the midshipmen them ship handling. We have a tug and then we have, pr rowboats, cutters, that the midshipmen go out in; we small sail boats that the midshipmen go out in, and we three steam launches. We have cut everything that util fuel down to bedrock.

Mr. KELLEY. You ought to try to get rid of the subc

Admiral WILSON. Before the subchasers came launches. The steam launches were not fast enough to first-class ship handling and going through the tac that we teach them from the books. I know they are

Mr. KELLEY. You have some enlisted personnel?

Admiral WILSON. One chief petty officer in cl and about three enlisted men. The boats are shipmen when they go out. The only thing that cos and I recognize that is quite an item. I do not kno method by which you could teach the midshipmen of the work. We teach the theoretical part in They are out every day when the weather is good, c

ENLISTED PERSONNEL.

Mr. KELLEY. You run them practically with your sonnel?

Admiral WILSON. All they do is a little upke the midshipmen themselves. We have a certain n mates and machinists who look out for the motor boats, and the little boats, but we have the number d minimum now. As I say, we have been told by Bureau of Navigation that we have met all requi

CHAIRMAN. Could you not teach the midshipmen to do the mechanical work without interfering with their scholastic course?

ADMIRAL WILSON. The mechanical work is all done during the drill. They do not go out during the scholastic periods. That is of the drill of the first class, the class that is going into the to become officers. They take the wheel, take the deck—we in officer on board each boat—make the signals, etc.

CHAIRMAN. But they do not overhaul the machinery.

ADMIRAL WILSON. Yes, sir; that is a part of the drill. Every day a number of midshipmen are down in the machine shop being to overhaul the machinery, to make machinery, in the forge and the blacksmith shops.

SECRETARY DENBY. I think the chairman meant could not the midshipmen attend to the boats instead of the carpenter-mates and stokers?

ADMIRAL WILSON. No. I do not think they could do the carpenter and the mechanical work. The number of enlisted men we have is very few. I do not think we have at the Naval Academy over ten outside of the mess attendants who attend to the midshipmen in the mess hall. We have, I think, 290 Filipino mess attendants. Although that is looked upon as quite a number, I think they contribute much to the efficiency and economy of the Government. If we did not have them paid from the Navy we would have to pay for them from the Naval Academy and pay them more and get less for the people and not be able to control their physical condition. As it is now, they are under military discipline and they are kept in good condition.

If a man is physically unfit in the way of any disease he is discharged at once, and I think the total expenditure for mess attendants to attend the midshipmen in the mess hall is much less than it would be if the Government appropriated the money and hired them for civil life.

DEPARTMENT OF MARINE ENGINEERING AND NAVAL CONSTRUCTION.

KELLEY. The next item is "Department of Marine Engineering and Naval Construction."

ADMIRAL WILSON. We can reduce that item \$6,160.20, making what we want, \$49,754.12.

KELLEY. How does that reduction come about?

ADMIRAL WILSON. In the same way, the rearrangement of pay, day week. I would like to say that our records have been kept very carefully and this is from practical knowledge.

COMMISSARY DEPARTMENT.

KELLEY. The next item is "Commissary Department."

ADMIRAL WILSON. We have by means of cutting down employees and rearranging things been able to make a saving on the estimate of \$201.01, making what we ask for, \$203,214.08 instead of what we asked for last year, \$238,415.09.

ENLISTED MEN AS MESS ATTENDANTS.

Mr. BYRNES. How did you make that estimate of \$4 271

Admiral WILSON. That was based on civilian mess attendants. The estimate shows an amount of \$406,000. That was estimated, by direction of the department, for civilian attendants in the messhall. As I have said, I think that it although paid out of pay of the Navy, instead of being the Naval Academy, the total transaction is much more and much more efficient and much more for the benefit of the shipmen to let it go as it is.

Mr. KELLEY. This would include about how many enlisted men?

Admiral WILSON. Two hundred and eighty-eight.

Commander HARRIS. The appropriation has been made for labor, but never used; for the last two years it has not been because we have been using the enlisted men as mess attendants.

Mr. KELLEY. Is not this the item about which we had a controversy last year with West Point?

Commander HARRIS. No, sir; that was the ration issue.

Mr. KELLEY. I recollect somebody saying that at West Point the boys paid something toward the help?

Commander HARRIS. Yes, sir.

Mr. KELLEY. At Annapolis you have been paying that?

Commander HARRIS. Yes, sir.

Mr. KELLEY. We made the reduction last year in order to equalize the difference between West Point and Annapolis and if you use these enlisted men that restores that difference?

Commander HARRIS. No, sir. Last year you did not appropriate for it.

Mr. KELLEY. No.

Commander HARRIS. It has always been in the estimate.

Mr. KELLEY. I know. The year before last there was an appropriation made of \$397,000?

Commander HARRIS. Yes, sir.

Mr. KELLEY. And this last year we reduced it to \$238,000. The boys had to pay it themselves to equalize the difference between West Point and Annapolis?

Commander HARRIS. Yes, sir.

Mr. KELLEY. If we put in the 288 enlisted men, as Admiral Wilson wants to do, then that will restore the difference?

Commander HARRIS. We had the enlisted men last year.

Mr. KELLEY. Was it not the intention that the boys at West Point should have these waiters?

Commander HARRIS. No, sir; never.

Mr. KELLEY. What was it?

Commander HARRIS. They had kept a certain number of waiters there, something like, I believe, 50 or so.

Mr. KELLEY. I remember the commandant of the Academy, when he was down here, made a list of the advantages of the boys at Annapolis had over the boys at West Point.

Commander HARRIS. That was one. We experienced other disadvantages.

Mr. BYRNES. And that one offset the other.

ELLEY. The point is that the West Point boys pay for such of mess attendants as are used up there, while you use men. That is the fact, is it not?

ander HARRIS. To a certain extent they have, sir; but, in they have to hire a certain number of waiters, I believe. nder the ration allowance item that that question came up.

ELLEY. No; there was a question of mess attendants, or the of paying for waiters.

ander HARRIS. As Mr. Byrnes has said, it was a question Point having some advantage and of our having some advantage, as a result of the hearing, I think you figured that one untraced the other.

ELLEY. We made a reduction from \$397,000 to \$238,000 for son.

ander HARRIS. I think you realized that we had these men as mess attendants, and for that reason we did not use ay, but turned it back. As long as we had not previously money, last year you did not appropriate it. The year e had enlisted men for mess attendants and did not use that ut we turned in a surplus.

ELLEY. The year before you had \$250,000 and had enlisted 1st year, or in 1921, you had \$395,000 and had civilian oes this rearrangement require any change in the language?

il WILSON. No, sir.

IAIRMAN. I have been in the House to find out what the l carries in this connection for the students at the Military . The bill provides that the students shall pay for all the ndants out of their ration allowance. For the current fiscal ration allowance is \$1.08 per man, but in the present bill that e has been reduced to 75 cents per man upon the recom- n of the War Department, and the students are to pay for attendants out of that 75 cents per day per man.

il WILSON. I do not see how they can do it.

IAIRMAN. That was the recommendation of the War Depart- d the committee accepted their recommendation. In addi- at they say that your people down at the Naval Academy ilk allowance.

ELLEY. But the milk costs the Naval Academy boys twice as the West Point people pay for their milk.

AIRMAN. Anyway, out of the 75 cents ration allowance, they y for all the mess attendants.

ELLEY. Now, this amount of \$203,214 represents the expense mmissary department, exclusive of 288 enlisted men who waiters.

il WILSON. Yes.

ELLEY. The question for us to consider is whether these men e paid for by the boys or by the Navy Department. You proviso:

That no employee paid under the provisions of this paragraph shall re- ry in excess of \$2,400.

il WILSON. I think that must have been put in at some time p some individual.

ELLEY. You do not care for that?

Admiral WILSON. I should like to see the whole of it out, because you put it up to the Superintendent of the navy to run the institution, and a superintendent who is the amount of the estimates \$350,000 is not going to pay extravagant salary. This is evidently for some one in whom somebody wanted to give him more money, but I will not say any more than everybody else doing the same kind of work.

Mr. KELLEY. You are not especially interested in the language?

Admiral WILSON. I think you had better let it go by and look into it further at some other time.

BUILDINGS AND GROUNDS.

Mr. KELLEY. The next item is for the Department of Buildings and Grounds. What are your recommendations there?

Admiral WILSON. There is no change in that item.

Mr. KELLEY. This item provides for one messenger to the Department of Buildings and Grounds, at \$1,001.60, and necessary building attendants, to have the same number of attendants that you had last year.

Admiral WILSON. Yes, sir.

Mr. KELLEY. How many is that?

Commander KIDD. One hundred and fifty-four.

Mr. KELLEY. And you pay the same wages?

Commander KIDD. The Navy Department changed its schedule in September and reduced the pay, but when they gave the pay they also provided that after six months employment they receive the maximum rate of pay. Before that order we were giving the maximum rate of pay and thus kept within the appropriation. This maximum rate of pay feature makes it have the same amount as this year for building attendants.

Mr. KELLEY. How much is that in all for the civil

Admiral WILSON. The sum total of that would be \$1,001.60, I think.

Mr. KELLEY. All right; we will verify that.

CURRENT MISCELLANEOUS EXPENSES.

Mr. KELLEY. For current and miscellaneous expenses \$110,000 for the current fiscal year, and you are asking for the same amount for the next fiscal year?

Admiral WILSON. Yes, sir; the same amount.

Mr. KELLEY. You had that amount of \$110,000 in 1920 and in 1922, and you had \$89,000 in 1919. Of course the amount was due to the increased attendants.

Admiral WILSON. As they come down, we will reduce it.

Mr. KELLEY. Have you a detailed statement of the items amount to?

Commander KIDD. Yes, sir.

Mr. KELLEY. You may put that in the record.

Commander KIDD. I will do so.

Current and miscellaneous expenses for fiscal year 1921.

and reference books for use of instructors.....	\$2,377.37
Stationery, blank books and forms, models, maps, and periodicals.....	17,113.68
Apparatus and materials for instruction in physical training and athletics.....	19,211.18
Fees of lectures and entertainments, not exceeding \$1,000, including and expenses of lecturer.....	0.00
Chemical philosophical apparatus and instruments, stores, machinery, fittings, apparatus and materials for instruction purposes.....	69,351.33
Appropriation.....	110,000.00
Expenditures.....	108,053.56
Balance.....	1,946.44

Mr. KELLEY. There must be some reduction in the cost of material stationery, blank books, forms, maps, apparatus for physical training and athletics, etc.

Commander KIDD. This item is based upon the expenditures of year, or this estimate was based upon those expenditures, and spent practically the entire amount last year. I have an itemized statement here.

Admiral WILSON. If we do not spend it, we will turn it back into Treasury. We can estimate the other items more accurately use they consist mostly of help.

Mr. KELLEY. In a case where the item is for purchasing material must take into account the natural fall of prices, which has been quite considerable. How much the fall has been on this class of things I do not know, but paper must be considerably cheaper.

Commander KIDD. The actual expenditures last year were \$3,052.56, and there was turned back the sum of \$1,046.44.

STATIONERY.

Mr. KELLEY. What part of this is stationery?

Commander KIDD. Stationery, blank books, forms, maps, periodicals, etc., amounted to \$17,113.68; reference books for the use of instructors amounted to \$2,377.37; apparatus and material for instruction in physical training and athletics amounted to \$19,211.18.

CHEMICALS AND PHILOSOPHICAL APPARATUS AND INSTRUMENTS.

The amount for the expense of lectures and entertainment we did spend last year, but we will use it this present year; and the amount of chemicals and philosophical apparatus and instruments, machinery, tools, fittings, apparatus, and material for instruction purposes, amounted to \$69,351.33.

Mr. KELLEY. That is the big item?

Commander KIDD. Yes, sir.

Mr. KELLEY. What about the price of chemicals and philosophical apparatus?

Commander KIDD. For the buying of this material, requisitions submitted to the department, and it is then purchased through department on regular orders, the lowest bidder furnishing the material.

Mr. KELLEY. You do not know from an examination of the market how the prices are running?

Commander KIDD. No, sir; I do not know.

Mr. KELLEY. You do not know whether the prices on that material have been reduced, or not?

Commander KIDD. No, sir.

Mr. KELLEY. If we should find that there was a reduction in the price of chemicals, we could reduce the appropriation proportionately?

Commander KIDD. Yes, sir.

Admiral WILSON. You can make that item \$100,000. do our best on \$100,000.

PURCHASE, BINDING, AND REPAIR OF BOOKS.

Mr. KELLEY. For the purchase, binding, and repair of the library, your current appropriation is \$2,500, and you the same amount for the next fiscal year?

Admiral WILSON. Yes, sir; and that is none too large.

EXPENSES OF BOARD OF VISITORS.

Mr. KELLEY. For the expenses of the Board of Visitors to Academy, you estimate \$3,000, which is the amount of appropriation. Do you spend that amount each year?

Admiral WILSON. Yes, sir.

CONTINGENCIES FOR SUPERINTENDENT.

Mr. KELLEY. For contingencies for the superintendent academy, you estimate \$3,000, which is the amount that appropriated for a long time.

Admiral WILSON. Yes, sir.

CONTINGENCIES FOR COMMANDANT OF MIDSHIPMEN.

Mr. KELLEY. For contingencies for the commandant of men, you estimate \$1,200, which is the amount of the current appropriation.

Admiral WILSON. We need that amount.

Mr. KELLEY. That makes in all for current expenses—

Admiral WILSON (interposing). There is a reduction of \$10,000, making the amount \$109,700.

MAINTENANCE AND REPAIRS.

Mr. KELLEY. For maintenance and repairs, you estimate \$1,105,000, which is the amount of the current appropriation.

NOTE. In connection with this appropriation, I wish to include in part of my remarks, a letter written by me to the Chief of the Bureau on October 28, 1921.

UNITED STATES NAVAL ACADEMY
Annapolis, Md., C

From: Superintendent.

To: Bureau of Navigation.

Subject: Budget estimates.

Reference: Bureau of Navigation's first indorsement, N-4 LD-G, dated October 1921.

Inclosures: Three.

1. In reply to reference noted above, the following information Academy is herewith submitted:

Buildings, cost of, to July 1, 1921,
Bridge, cost of,
Docks, cost of,
Sea Wall, cost of,

Total,

(This total is exclusive of cost for roads and sidewalks.)

maintenance and repairs estimate for 1923 (exclusive of commutation of quarters for messmen), is \$1,200,000, which is 7.6 per cent of the original cost of the structures. Interesting data concerning the Naval Academy (116 major buildings and 18 not including such smaller structures as garages, etc.)

Roof Hall: There are 16,000 lineal feet of corridor, 886,306 square feet of floor and 1,806 rooms.

Wharf: Santee Wharf, reinforced concrete structure on concrete piles, wood block 6,316 square feet. Reina Mercedes Wharf, timber structure on wood piles, 3,346 square feet.

Wall: Masonry, 10,770 lineal feet; timber, 700 lineal feet.

Bridge—over Dorsey Creek: Reinforced concrete structure on concrete piles, 5,360 feet of roadway. Steel plate girder draw span with wood deck, 2,640 square feet of roadway.

Street: Paved, 9,470 lineal feet; unpaved, 29,080 lineal feet.

Street: Paved, 43,650 lineal feet; unpaved, 3,000 lineal feet.

Road tracks, 4,350 lineal feet.

Water piping: Salt water (fire and flushing), 25,500 feet; fresh-water supply, 1,000 feet; fresh-water suction, 3,000 feet; fresh-water air lines to artesian wells, 2,400 feet; fresh-water lines, 6,015 feet. Steam lines: Lead lines, 17,200 feet; return lines, 1,000 feet; sewers, 28,600 feet; drains, 77,000 feet.

Gas piping of all kinds, 300,000 lineal feet (57 miles).

Plumbing fixtures: Natatorium, 1; showers, 1,000; bathtubs, 158; lavatories, 320; drinking fountains, 34; water-closets, 587; urinals, 297.

Drawings: Inclosures will be found one blue print showing layout of outside steam lines, one print showing layout of fire mains, and a photograph showing condition of iron at a section which failed during a recent fire drill.

Life: The average life of extra heavy pipes for fresh water is only five years, due to rapid oxidation from iron oxide in the water, and while the deferrization plant to be installed during the present year will help future conditions, it will not remove the necessity of the usual replacements for 1923. The fresh water is supplied from artesian wells within the limits of the Naval Academy.

Fire mains, as will be noted from inclosed photograph, are in particularly poor condition, and 1923 must include extensive replacements.

HENRY B. WILSON.

DEFERRIZATION PLANT. •

Mr. WILSON. We have this year been working on \$90,000 less than the amount actually spent last year. There have been times at the Naval Academy during this cold weather when we have not been able to get into the buildings, because we could not run beyond our allotted appropriation for the month. Without going through the whole thing in detail, I will say that that amount of \$1,105,000 is none too small.

I say that from our experience this year. In addition to that—and I am coming now to an item that has caused an increase—water at the Naval Academy is from artesian wells, and it is full of iron. That iron has been the cause of our using an extra quantity of water, because when anyone turns on a spigot and this rusty mud comes out, he will let the water run until it runs clear. In the last year's appropriation an amount of money to put in a deferrization plant which is now under construction and will be ready for operation July 1, 1922. That deferrization plant will be worth the money, because it will take the iron out of the water, make a less expenditure necessary by keeping our pipes from rusting, as they have done in the past and are doing now. We estimate that it will cost \$20,000 to operate that deferrization plant, and we would like to have \$20,000 added to this amount, which is more than the amount of the reduction we have made in other places. The estimate is conservative and itemized as follows: Supervision, \$5,000; operators (4), \$7,000; material, \$5,000; power plant costs,

FUEL.

RNES. Do you buy fuel under this item?

WILSON. Yes, sir; and during this winter we were up in the heating of the building.

RNES. How do you buy coal?

under KIDD. A contract is made every six months in the partment. I think the last contract price was \$7.23 per ton.

WILSON. Last winter we had to turn the heat on for in a building and then turn it off for two hours.

RNES. Is there a decrease in the price of coal?

under KIDD. There was an increase of about 40 cents per ton.

ENCH. What kind of coal do you use?

under KIDD. It is bituminous coal, or steaming coal.

ALLEY. What was the price?

under KIDD. \$7.23 per ton under the present contract.

ALLEY. What is the date of that contract?

under KIDD. October 1, I believe.

ALLEY. The price depends upon where it is delivered?

under KIDD. Yes, sir; it must come down there by rail and It is delivered at the Naval Academy.

ALLEY. What did you pay last year?

under KIDD. The average cost, I think, was \$6.828 delivered academy.

ALLEY. For the same grade of coal?

under KIDD. Yes, sir. Another item that makes the Naval more expensive than it would be in most localities is the water that affects the pipes to such an extent that the life of the pipes there averages only about five years, and we have 50 miles of interior piping.

ENCH. You have installed this deferrization apparatus on the system entirely, so that all of your piping will be free from rust?

under KIDD. Yes, sir. Of course, the immediate effect of rusting will not be marked, but in the long run it will amount to a great deal. Our fire mains are affected in the same way, and they are full of sediment, and one entire high-pressure loop protecting the engine and Roger Roads must be renewed.

WILSON. We have filters now, and they are quite expensive. There will be a saving through the elimination of the rust.

ALLEY. For general maintenance and repairs at the academy is \$521,000, and you are asking for how much?

under KIDD. We are making the estimate upon the basis of the expenditures of last year.

ALLEY. You are apportioning it in about the same way?

under KIDD. Yes, sir; in about the same way.

ALLEY. There were no unusual expenditures included in the estimate of last year?

under KIDD. None at all. The maintenance and repairs amount to about 7 per cent of the value of the entire plant.

Commander KIDD. No, sir; that comes from the Navy Department the appropriation "Pay, miscellaneous."

KELLEY. How does this item for pay of inspectors and drafts- come in here?

Commander KIDD. The drafting force over there is paid under maintenance and repairs," and the inspectors for the new work is going on and also the printers come under that.

EXPENDITURES AND ESTIMATES FOR MAINTENANCE AND REPAIRS.

KELLEY. You will put in the two statements, one showing expenditures and the other showing the estimates by classes?

Commander KIDD. Yes, sir.

KELLEY. I think you had better apportion that if you can.

Commander KIDD. Yes, sir.

Expenditures and estimates, maintenance and repairs, Naval Academy.

	Expenditures fiscal year 1921.	Original estimated expenditures fiscal year 1923.	Reduced estimated expenditures fiscal year 1923.
Essary repairs to buildings, wharves, and walls in- g the grounds of the Naval Academy, improvements, s, and fixtures.....	\$521,983.62	\$522,000.00	\$481,600.00
ts, periodicals, maps, models, and drawings.....	125.00	125.00	100.00
and repair of fire engines; fire apparatus, and plants.....	584.59	650.00	10,000.00
ry.....	18,603.34	19,000.00	15,000.00
and maintenance of all horses and horse-drawn ve- for use at the academy, including the maintenance, ion and repair of three horse-drawn passenger-carry- cles to be used only for official purposes.....	10,335.80	13,000.00	10,000.00
d plants.....	2,000.00	2,000.00	1,200.00
d repairs of same.....	12,634.48	13,000.00	10,000.00
y.....	2,378.56	3,000.00	2,000.00
e for Government buildings and offices at the acad- cluding furniture for midshipmen's rooms; and re- same.....	55,630.93	55,000.00	50,000.00
furniture for midshipmen's rooms.....	\$11,212.61		
r (repairs to furniture).....	16,612.63		
rial.....	27,815.69		
	55,640.93		
other fuels.....	197,576.90	200,000.00	200,000.00
oil, and gas.....	14,555.00	14,000.00	14,000.00
ice on light and power plants.....	146,727.22	156,000.00	145,000.00
and clearing up stations and care of buildings.....	63,914.73	64,000.00	60,000.00
ice on fires, lights, fire engines, fire apparatus, and and telephone, telegraph, and clock systems.....	3,837.44	4,000.00	3,000.00
al labor.....	9,708.01	10,000.00	5,000.00
ng, water tax, postage, telephones, telegrams, tolls, riage.....	7,747.14	7,100.00	4,000.00
lawnings.....	5,544.69	6,000.00	3,000.00
boxes.....	116.40	125.00	100.00
heating and lighting bandsmen's quarters.....	9,147.82	9,000.00	9,000.00
spectors and draftsmen.....	12,587.82	9,000.00	4,000.00
d astronomical instruments.....	4,325.82	5,000.00	3,000.00
f employees on leave.....	72,190.43	65,000.00	55,000.00
on.....	22,947.02	23,000.00	20,000.00
nce and operation of deferritization plant.....	0.00	0.00	20,000.00
revision of deferritization plant.....	\$3,000.00		
rial.....	5,000.00		
y engineers (3 men and 1 relief).....	7,000.00		
r plant costs.....	5,000.00		
	20,000.00		
al.....	1,195,102.56	1,200,000.00	1,125,000.00

COMMUTATION OF RENT FOR BANDSMEN.

Mr. KELLEY. The next is commutation of rent for bandsmen. ' is the same as last year, and you have the same number of bandmen and the same pay?

Commander KIDD. Yes, sir.

NUMBER OF BANDSMEN.

Mr. KELLEY. How many have you in the band?

Admiral WILSON. It was established by a special act of Congress and I think it has somewhere between 60 and 75.

Mr. KELLEY. I wish you would put the exact number in the report, Admiral WILSON. Very well.

NOTE.—The band consists of 75 musicians, including the leader.

TOTAL—MAINTENANCE AND REPAIRS.

Mr. KELLEY. How much does that make in all for repairs and maintenance?

Admiral WILSON. What we ask for, sir, is \$1,125,000.

Commander KIDD. And what we spent last year was \$1,195,110.

Mr. KELLEY. Probably we had better inquire of the Bureau of Yards and Docks as to the cost of such articles as go into repairs as compared with last year.

Commander KIDD. It is a question of men and material.

NUMBER OF GRADUATES TO BE COMMISSIONED.

Mr. KELLEY. There is just one other question, Admiral, and that is the number of officers you expect to make from your graduation class this year. How many of the graduates do you desire to be commissioned?

Admiral WILSON. Personally, I would like to see all the graduates commissioned on account of their having put in four years at the academy and having gone through all that time with the idea of becoming officers, but, of course, I have nothing to do with the number who do get commissions.

Mr. KELLEY. The line of the Navy is about 4,100, as I recall, and I am told by the Navy Department that the natural loss by death, resignation, and other causes would run about 135. Of course, nobody intends to increase the number of the line above the 4,100, and what have you to say about the desirability of putting boys into the Navy to fill 135 vacancies?

Secretary DENBY. May I say just a word? That is a pretty question to ask the admiral to answer. They have had hearing before the other committee and they suggested the question of whether or not it would be a good idea to have some of the old reserve officers who are still acting dropped and substitute new ones. I do not suppose Admiral Wilson has any way of forming any opinion on that, but he would have an idea as to taking the new men and getting rid of the older men, the reserves and men of that character.

Mr. KELLEY. That is, create more vacancies by some other means.
Secretary DENBY. Yes.

Mr. KELLEY. You suggest that that be done by taking out of the in some manner the officers who were recently taken in from the reserves?

Secretary DENBY. Some of them and some who would like to retire under the 30-year retirement law and would do it if we should let them out.

Mr. KELLEY. Admiral, have you figured at all how long it would take these boys to get above the grade of lieutenant?

Admiral WILSON. No, sir; I have not. All I know on the subject is that I heard in the Committee on Naval Affairs the other day, and gathered there was an arrangement by the Navy Department by which it was proposed not to increase the total number of officers but to create vacancies by retirement so that the whole class could get in. I have not gone into any of the details nor have I considered it was my duty to do so.

Mr. KELLEY. I take it your answer to my question, to the effect that it was as desirable to take this class in, was predicated upon the assumption that the Navy Department intended to make vacancies enough to take these boys to fill.

Admiral WILSON. That is what I intend to convey, that the Navy Department, without increasing the total number, was to make some arrangement by which vacancies could be created for this class.

FUTURE PROMOTION OF GRADUATES COMMISSIONED.

Mr. KELLEY. And unless the number of vacancies was made equal to the number of midshipmen it would not be fair to the boys to put them in and have them take chances on being promoted, would it?

Admiral WILSON. I think those men down there would take any chance to get into the Navy.

Mr. KELLEY. They would now, but in three, four, or five years from now when they begin to have families and find it impossible to be promoted—

Admiral WILSON (interposing). I doubt, under the most adverse conditions, whether it would be any worse than the time I came in the Navy, for I was 13 years from the time of graduation until I made a junior lieutenant.

Mr. KELLEY. That is not a very good situation, is it?

Admiral WILSON. No, sir; but I survived it, and I am happy I am here.

Mr. KELLEY. Of course the fact that the Navy was greatly expanded in the more recent years of your life has made a great deal of difference, I imagine.

Admiral WILSON. My idea was that the increase in the Navy was due to the necessities of our country, and I have thought that the thing will probably obtain in the future. Although I personally recognize it is a hard time for our country economically, yet I think it is wrong to do away with the Navy until we are better satisfied it will not be needed again. In my day as a midshipman graduated many good officers were lost and sent into civil life who would have been of great value later on, and the amount expended to get them to fill their places was much more than what it would have cost to retain them.

Secretary DENBY. They have substantially been stated by Wilson.

Secretary DENBY. Well, we have no idea of eliminating it is the will of Congress to do so. We hope to keep the and eliminate some of the staff, if necessary, where they can be disproportionate with the line.

Secretary DENBY. Those vacancies are—

Secretary DEXBY. No; line officers; but there are a reserve officers who are now operating auxiliary ships of another.

Secretary DENBY. That is so, too.

Mr. KELLEY, Admiral, is there anything further which to say to the committee?

Admiral WILSON. As you know, the Government shipmen's store \$255,000 for the dairy. Now the up how to pay it back. It is only a question of scratch it off the list. If the dairy is kept as it is midshipmen have to pay back the money, then you that is worth about \$350,000 lying there belongi men to which the Government holds the deed.

Secretary DENBY. Has the land been bought?

Admiral WILSON. Yes, sir. I should like to
to you: As it is now, with the ration at \$1.08, it
save and eventually repay the Government the
borrowed. Then the midshipmen would have
with the Government holding the deed (at
the sum of \$255,000 is still due). That, I think,
situation. What I suggest is that the Govern
which will be a matter of bookkeeping and inv
Then the ration could be reduced to 85 cents
man, making a saving of 23 cents per day
appropriation to be made. In other words, the
getting no money paid back for the \$255,000
money, \$1.08 per day per midshipman, whe
ration to 85 cents per midshipman and wi
there will be 23 cents per day per midship
on the appropriation bill. The present way y
priating money for four years which will eve

treasury. The proposed way, by a matter of bookkeeping, will reduce the appropriation by 23 cents per day per midshipman.

FRENCH. Your plan would be to make the dairy a part of the navy plant?

ADMIRAL WILSON. A Government establishment.

FRENCH. And it would contribute its part in lieu of what we otherwise appropriate for the support of the boys?

ADMIRAL WILSON. Yes, sir. For 85 cents a day we will feed the midshipmen—and they live well—run the dairy, and supply them with milk. The Government will have a property worth \$350,000 on which they have paid a loan of \$255,000.

KELLEY. The boys pay a certain amount for their milk as a part of the ration of \$1.08?

ADMIRAL WILSON. Yes, sir.

KELLEY. The reason why the ration is so high is because of the keeping of the farm the cost of the milk is above what it would be bought from private people?

ADMIRAL WILSON. No; not exactly. We get much better milk.

KELLEY. I know that the milk is better, but it costs more?

ADMIRAL WILSON. It costs 80 cents a gallon.

REDUCTION OF DAILY RATION TO PAY FOR DAIRY.

KELLEY. Have you saved anything?

ADMIRAL WILSON. Yes, sir. You could cut the ration to \$1.02 from \$1.08—6 cents a ration—and we would save up and probably be able to refund the Government the money back in four years. But you could reduce the appropriation by a certain amount if you would wipe off the expense of bookkeeping, which takes no money.

KELLEY. You want to reduce the ration 6 cents a day and save 6 cents?

ADMIRAL WILSON. No. If you want the dairy to go on as it is to-day, I say that you can cut the ration to \$1.02.

KELLEY. That would be a saving of 6 cents a day, not on the dairy but on other things?

ADMIRAL WILSON. Yes, sir.

KELLEY. How can you reduce the ration to 85 cents?

ADMIRAL WILSON. Because the difference is the money we are going to save to pay on the loan. What is the use of appropriating \$1.08 a day to the midshipman and let him put 17 cents into a fund to pay you back at the end of four years? Why not wipe off the \$1.00—it is a mere matter of bookkeeping—and reduce your appropriation by 17 cents for every midshipman per day?

KELLEY. Of this \$1.08, what part of it goes to create a fund to pay back the Government?

ADMIRAL WILSON. We will run the ration about 85 cents.

KELLEY. Then the Government will get 17 cents out of each midshipman that it appropriates?

ADMIRAL WILSON. Yes, sir.

KELLEY. Of course, the ration will come down?

COMMANDEER HARRIS. The year before it cost \$1.22.

BYRNES. Then they will get the milk for nothing?

Admiral WILSON. The dairy then would be a part of ment. When the lien of the midshipmen is declared the Government assumes the dairy, worth \$350,000, immediately down the ration to 85 cents and make your appropriation so much less, the difference between 85 cents and \$1.02.

Mr. KELLEY. Have you some money to the credit of the ment?

Admiral WILSON. \$38,000.

Mr. KELLEY. And that is the amount you could pay Government any time you wanted to?

Admiral WILSON. Yes, sir.

Mr. FRENCH. That is in the fund?

Admiral WILSON. Yes, sir.

Mr. FRENCH. What is the fund called?

Admiral WILSON. It is saved up to pay back the \$255,000.

Mr. KELLEY. Is that invested anywhere?

Admiral WILSON. No, sir; it is in the Treasury.

Mr. KELLEY. So the original loan has been reduced by \$3 Commander HARRIS. No; it is held in reserve.

Mr. KELLEY. As against the advance?

Commander HARRIS. Yes, sir.

Mr. KELLEY. You can not draw it out?

Admiral WILSON. It is to Commander Harris's credit use it for anything. We have put it aside as a saving the repayment. The only question about it is when we the ration at a certain point which will wipe that out.

Mr. KELLEY. Wipe it out by legislation?

Admiral WILSON. Yes, sir; and reduce the ration and total figure so much less in the appropriation bill.

Mr. KELLEY. So that those who talked about the difference between the ration at the Naval Academy and at the Military would not realize that we are wiping out a debt here?

Admiral WILSON. No, sir.

Mr. BYRNES. West Point will then want free milk?

Admiral WILSON. It has not been free milk. They have borrowed this money and with care and at up a dairy which they are utilizing for their If the Government will say to us, "You need not let it always stay on the books," we can reduce the ration right here, and we will run the dairy and feed the men everything; but if we have to pay back the \$255,000 we have to have some extra money which you it back because you are holding this property \$350,000.

Mr. KELLEY. Or we can let the loan stand and to 85 cents?

Admiral WILSON. I am perfectly willing to and have the ration reduced to 85 cents, provided perpetuity.

Mr. KELLEY. If at any time the Treasury stop money being paid back, the ration would have to

Admiral WILSON. Yes, sir. I do not think thing to do—to have this \$350,000 property tied

a lot of midshipmen. There is the property worth that money. It would be a business proposition to settle it and for the Government to assume it.

KELLEY. Now it is a midshipmen's affair?

AIRAL WILSON. Pure and simple; yes, sir.

KELLEY. You have money enough to pay the store the \$69,000 you owe?

AIRAL WILSON. Yes, sir.

BYRNES. Where will you get the money to wipe it off?

AIRAL WILSON. Just wipe it off. I think it would be a valuable to settle and not have the \$350,000 property belong to a lot of midshipmen.

KELLEY. Is there any other statement you would like to make, sir?

AIRAL WILSON. No, sir.

KELLEY. We are very much obliged to you.

WEDNESDAY, MARCH 15, 1922.

MARINE CORPS.

STATEMENTS OF HON. EDWIN DENBY, SECRETARY OF THE NAVY;
 . GEN. JOHN A. LEJEUNE, COMMANDANT MARINE CORPS;
 . GEN. CHARLES L. McCAWLEY, QUARTERMASTER; BRIG.
 . GEORGE RICHARDS, PAYMASTER; LIEUT. COL. HUGH
 THEWS, ASSISTANT QUARTERMASTER; LIEUT. COL. H. C.
 DER; AND CAPT. L. C. SHEPHERD.

KELLEY. We have with us this afternoon the Secretary of the General Lejeune, General Richards, and other officers of the Marine Corps for the consideration of the Marine Corps estimates. Now, would you like to make a general statement before we go into details?

GENERAL LEJEUNE. Yes, sir.

KELLEY. If so, we will be very glad to have you go ahead your own way.

GENERAL STATEMENT.

GENERAL LEJEUNE. Mr. Chairman and gentlemen of the committee, hearings before this committee last year I described the measures taken to administer the affairs of the Marine Corps economically.

I pointed out some of the steps which we had taken to cause a reduction in the expense of maintaining the Marine Corps. The aim of economy has been continued with increasing intensity at the present time. As no great result can be attained without education, we have endeavored in every way practicable to educate the opinion within the Marine Corps and to instill into the minds of officers and men the vital necessity of preventing waste and the importance of putting our corps on an economical basis. This aim of education has been conducted by means of orders, circulars, bulletins, personal letters, personal talks, addresses to

groups of officers, notably at Quantico, and especially weekly conferences held at headquarters Marine Corps, matters of interest or importance to the Marine Corps are discussed.

Stenographic notes of the discussions at these conferences are taken, and after correcting the rough draft mimeographs are made and transmitted to all the posts of the Marine Corps. In all of these conferences the subject of economy is upon, and the economies effected have been described. In this way the entire Marine Corps is kept informed of our policy, and one has had the benefit of the experience of others. All officers and men have cooperated loyally, faithfully, and efficiently, and enormous results have been achieved.

ECONOMIES EFFECTED.

I will not attempt in this statement to go into the details, but I, however, wish to mention some of the salient features of our economical program. On January 1, 1921, we returned to the system of an annual money allowance of clothing for the enlisted men. During the war this system was abandoned and clothing was issued to men gratuitously. This method, while necessary in the emergency, resulted in great waste. The return to the system in 1921, the war has resulted in an annual saving of about \$1,000,000. Another great saving has been effected by reducing the salaries of the civil employees. Since the close of the fiscal year 1920, a total reduction of \$775,502.74 in this item of expenditure has been effected at Quantico, Parris Island, and the depot of Philadelphia. In the recruiting service a large reduction of expenditure has been made. During the calendar year 1921 the total cost of the service, including commutation of rations and quarters for recruits, was \$490,000 less than the preceding calendar year. This saving includes cost of transporting recruits, which is chiefly effected by the reduction in the number of men required to be enlisted, although we have named it a saving of transportation charges of \$10,000. We did that by intensifying recruiting at the recruiting stations and minimizing it at the distant stations.

Since January 1, 1922, savings in rentals at the rate of \$100,000 per annum have been made. Clerical force on duty at the United States Marine Corps was reduced by 177 men in 1920, and February 1, 1922, with a saving in the amount of \$85,500 and a much larger saving in the commutation of quarters.

In other words, that money represents the difference between the cost of keeping men on a commutation basis and the cost of keeping them at the barracks, but the actual cost of the barracks and quarters has been about \$400,000 less. The men are now at duty and are now carrying rifles instead of doing nothing.

REDUCTION IN PER CAPITA EXPENSE.

Many other administrative measures have been taken which have resulted in large savings in the main, but I do not deem it advisable to take up the various details.

e by enumerating them, especially as all of the details will
 ht out by Brigadier General McCawley in his statement.
 i to mention, however, the following reductions in expendi-

scal year ending June 30, 1920, there was an average of
 listed men supported by the Marine Corps and an expendi-
 17,473,268 under the maintenance appropriation.

the fiscal year ending June 30, 1921, there was an average
 enlisted men and an expenditure of \$13,620,844.

the current fiscal year there will be an average of 21,000
 men and an expenditure of \$10,155,050.

parison of these figures shows that the per capita expense
 maintenance appropriation during the three years in ques-
 as follows: 1920, \$962; 1921, \$694; 1922, \$483.

reduction in per capita expense was made possible partly
 falling prices and partly by economies in administration.
 onnection, I feel that I should remind the committee that
 ne Corps has asked for no deficiency appropriation this

hen the current naval appropriation bill became a law in
 it seemed impossible for the corps to maintain an average
 trength of 21,000 on the funds allotted; as to do so meant
 rt of 1,000 more men than the year before on funds which
 00,000 less than the amount expended during that year.
 mined, however, to accomplish the task if it was humanly
 o do so; and we now feel safe in saying that we have suc-
 d that there will be no deficiency in our appropriation.

EXPENSE OF GUARDS FOR MAIL TRAINS.

ition to the usual expenses we financed the mail guards, an
 ense which we estimate to be about \$325,000, and which
 n the funds which we had reserved for an emergency.
 ccess has been due to the systematic handling of Marine
 nds, to the exercise of rigid economy, to the authority to
 r appropriations as one fund, and to the fact that we en-
 year with large stocks of supplies on hand. Part of these
 ch as provisions, were purchased during the latter months
 eeding fiscal year, and the remainder consisted of supplies
 during the World War. We will not be so fortunate next
 our stocks have been very much depleted, and the lack of
 s year will prevent the purchase of supplies in advance.
 reason our estimates for our maintenance appropriations
 year are somewhat in excess of the amounts appropriated

I am referring not to our original estimates, but to our
 timates. The original estimates were prepared last July,
 seemed impossible to maintain the corps for a smaller
 but profiting by our experience since that time, we have
 em downward and have succeeded in materially reducing
 t is, the figures we will present to you to-day are very much
 figures that were sent to you through the Budget.

I that the revised estimates are based on sound principles
 the entire amount requested will be necessary.

OFFICERS AND ENLISTED MEN.

These estimates are for the support of only 20,000 men, a reduction of 1,000 below the average strength for this year. They are estimated for what was prescribed by the Navy Department, and represent the number of men required to perform satisfactorily the peace-time duties assigned to the Marine Corps. As to those duties and the number of officers and men now detailed to their performance are as follows:

Personnel.	Enlisted.
(a) Marine detachments on vessels of the fleet.....	1,938
(b) Garrisons for Haiti, Santo Domingo, Virgin Islands, Guam, Nicaragua, and Peking.....	3,000
(c) Guards for navy yards, naval stations, ammunition depots, etc., at home and abroad.....	4,379
(d) Detachments for duty at training stations, recruiting service, at headquarters, supply depots, staff offices, etc.....	2,400
(e) Recruits under training.....	1,520
(f) Expeditionary forces for emergency use:	
East coast.....	3,078
West coast.....	867
(g) Aviation at home and abroad.....	3,953
(h) Officers schools (students).....	730
	20,120

The number unaccounted for (880 men and 28 officers) are casual detachments en route to and from foreign stations, sick in hospital, etc.

Mr. KELLEY. And these new estimates are based upon 20,000 men.
General LEJEUNE. Yes, sir. In this summary the officers are grouped by classes of duties for convenience of reference and afford a basis of discussion. The tables of complements, submitted, give in detail the number of officers and men authorized each detachment, post, barracks, or ship, both at home and abroad. They account for every officer and every man now in the Corps, and are as follows:

Distribution of the commissioned complement of the Marine Corps, Feb. 10, 1922.

Annapolis, Md.: United States Naval Academy.....	
Boston, Mass.: Marine Barracks, navy yard.....	
Charleston, S. C.: Marine barracks and naval prison.....	
Hampton Roads, Va.: Naval operating base.....	
Hingham, Mass.: Naval ammunition depot.....	
Receiving ship.....	
Indianhead, Md.: Naval proving grounds.....	
Key West, Fla.: Naval operating base.....	
New London, Conn.: Naval submarine base.....	
New Orleans, La.: Marine barracks, naval station.....	
Newport, R. I.: Naval torpedo station.....	
New York, N. Y.: Marine barracks, navy yard.....	
Receiving ship.....	
Dover, N. J.: Naval ammunition depot.....	
Norfolk, Va.: Marine barracks, navy yard.....	
Sea school.....	
St. Juliens Creek, Va.: Naval ammunition depot.....	
Pensacola, Fla.: Naval air station.....	

la, Pa.:	
barracks, navy yard-----	10
ing station-----	1
a, Pa.: Naval ammunition depot-----	1
l, N. H.:	
barracks, navy yard-----	4
prison detachment-----	7
leston, W. Va.: Naval ordnance plant-----	1
n, D. C.:	
barracks-----	2
Corps Institute-----	11
barracks, navy yard-----	4
ers Marine Corps:	
general commandant and aids-----	5
ting-----	1
nel-----	3
ions and training-----	9
nt and inspector-----	7
rmaster-----	9
ster-----	11
l duty with Army and Navy-----	12
Va.: Naval mine depot-----	1
nd, S. C.: Marine barracks (to fluctuate between 33 and 48, de- upon number of recruits under instruction)-----	40
s (east):	
nt paymaster, Philadelphia, Pa-----	1
nt paymaster, Atlanta, Ga-----	1
of supplies, Philadelphia, Pa-----	4
of supplies, Hampton Roads, Va-----	2
: Recruiting bureau and service-----	36
d, Calif.: Barracks detachment, naval prison detachment, naval ion depot, rifle range detachment, and recruit depot-----	21
id, Wash.:	
barracks, navy yard-----	6
ammunition depot-----	1
ash.: Naval torpedo station-----	1
Calif.:	
barracks-----	4
air station-----	1
Calif.: U. S. S. Eagle No. 11-----	1
t of the Pacific, San Francisco, Calif-----	7
P. I.-----	5
po, P. I.-----	3
ua, Nicaragua-----	5
Harbor, Hawaii-----	10
-----	15
namo Bay, Cuba-----	5
Islands-----	7
, China-----	11
an, P. R-----	1
s (including sick in hospital, en route, etc.)-----	28
ld have 140)-----	98
ingo, Dominican Republic (should have 181)-----	130
a. (should have 196)-----	127
Calif., Fifth Brigade (should have 40)-----	27
should have 104)-----	71
udents)-----	64
l (should have 1,086)-----	942

RECAPITULATION.

l officers in Marine Corps-----	942
details to staff duties and four-year details of line officers to ies-----	71
s (additional) performing staff duties-----	35

Number of officers allotted to aviation.....
 Number of officers engaged on line duties.....

Total.....

At sea.....
 Guards for navy yards, ammunition depots, naval stations, at h
 abroad.....

Aviation at home and abroad.....

Garrisons for Haiti, Santo Domingo, Virgin Islands, Peking, Man
 Guam.....

Permanent detachments for training stations, recruiting service, he
 ters, staff officers, supply depots, Marine Corps Institute, Quantico
 San Diego.....

Expeditionary:.....

East coast.....

West coast.....

Schools (students).....

Casuals (including sick in hospital, en route, etc.).....

Total.....

SCHOOLS.

Instructors.....

Students:.....

Company officers' school.....

Field officers' school.....

Signal school, New Jersey.....

General Staff School, Washington, D. C.....

Fort Leavenworth, Kans.....

Camp Benning, Ga.....

Naval War College, Newport, R. I.....

Camp Holabird, Md.....

Total students.....

Total instructors.....

Total.....

The above is the total now in schools.

*Distribution of authorized enlisted personnel on active duty at home, on sta
 tion, and at sea, March 1, 1922, 21,000.*

Annapolis, Md.: United States Naval Academy.....

Alexandria, Va.: Naval torpedo station.....

Boston, Mass.: Marine barracks, navy yard.....

Charleston, S. C.: Marine barracks, navy yard.....

Chelsea, Mass.: Hospital guard.....

Hampton Roads, Va.: Naval operating base.....

Hingham, Mass.:.....

Naval ammunition depot.....

Receiving ship.....

Inlandhead, Md.: Naval proving ground.....

Key West, Fla.: Naval operating base.....

New London, Conn.: Naval submarine base.....

New Orleans, La.: Marine barracks, naval station.....

Newport, R. I.: Naval torpedo station.....

New York, N. Y.:.....

Marine barracks, navy yard.....

Receiving ship detachment.....

Naval hospital guard.....

Fort Lafayette, N. Y.: Naval ammunition depot.....

Iona Island, N. Y.: Naval ammunition depot.....

Dover, N. J.: Naval ammunition depot.....

racks, navy yard	202
tal guard	65
k, Va.: Naval ammunition depot	20
Naval air station	50
	70
I.:	
racks, navy yard	302
ation	50
: Naval ammunition depot	50
x.: Naval radio station	25
H.:	
racks, navy yard	115
n detachment	152
: Naval radio station	12
n, W. Va.: Naval ordnance plant	36
C.:	
racks, barracks detachment	50
ps institute	178
	125
tal guard	20
d	67
marine Corps, Washington, D. C.:	
Commandant, major general commandant, and adjutant	
tor's offices	90
partment	50
ter department	73
ng guard	19
dock	10

242

Naval mine depot 44

ient detachments 457

fourth Brigades 3, 078

C.:

zations 710

l apprentices 1, 250

1, 960

st):

ymaster, Philadelphia, Pa 9

ymaster, Atlanta, Ga 10

plies, Hampton Roads, Va 41

plies, Philadelphia, Pa 70

Y.:

ision

sion

vision

bureau

t):

ision

vision

403

DEPARTMENT OF THE PACIFIC.

lif.:

achment and guard company 304

detachment 25

munition depot 36

n detachment 80

445

Recruit depot, Mare Island, Calif.:

Instructors.....
 Recruits.....
 Sea school.....

Puget Sound, Wash.:

Marine barracks, navy yard.....
 Naval ammunition depot.....

Keyport, Wash.: Naval torpedo station.....

San Diego, Calif.:

Barracks detachment, marine barracks.....
 Navy repair base.....
 Naval radio station, Chollas Heights.....
 Naval fuel plant, La Playa.....
 Naval air station.....

Fifth Brigade, Seventh Regiment.....

San Pedro, Calif.: U. S. S. *Eagle No. 11*.....

San Francisco, Calif.:

Department of the Pacific and assistant adjutant and inspector's
 offices.....

Assistant paymaster.....

Depot of supplies.....

Aviation.....

Marine detachments afloat.....

FOREIGN.

Santo Domingo.....

Haiti.....

Cavite, P. I.....

Olongapo, P. I.....

Managua, Nicaragua.....

Pearl Harbor, Hawaii.....

Guam, Mariana Islands.....

Guantanamo Bay, Cuba.....

Virgin Islands.....

Peking, China.....

Russian Island, Vladivostok, Siberia.....

Total.....

Casual detachments.....

Grand total.....

DISTRIBUTION OF AUTHORIZED UNLISTED PERSONNEL ON ACTIVE DUTY AT
 FOREIGN STATION, AND AT SEA.

At sea.....

Guards for navy yards, ammunition depots, naval stations, etc.,
 home and abroad.....

Aviation (at home and abroad).....

Garrisons for Haiti; Santo Domingo; Virgin Islands; Peking,
 Managua, Nicaragua; and Guam, Mariana Islands.....

Permanent detachments for training stations, recruiting:
 quarters, staff offices, supply depots, Marine Corps Institute
 and San Diego, and Marine Band.....

Recruits under training.....

Expeditionary force:

East coast (consisting of third brigade, First Regiment-
 and signal; Tenth Regiment: Artillery; fourth brigade,
 Regiment Infantry and machine gun units; Sixth
 Infantry and machine gun units.....

West coast (consisting of fifth brigade, Seventh
 Infantry).....

Casual detachments.....

Total.....

he strength of the detachments, etc., was arrived at after a most istaking investigation, and since they have been put into effect y protests have been received from commandants and other re- sible officers on account of the reduction in the authorized com- nents of the detachments at the stations under their command, epeated requests have been received urging increases in both ers and men. Very recently a strong appeal for 200 additional ecame from Pearl Harbor. Practically all requests for increases e been refused, and we have little by little built up our expedi- ary force at Quantico for emergency use. This force is the t of the Marine Corps. Without it our hands are tied, we can nction. With it we stand always ready for any emergency ay arise at home or abroad. This expeditionary force fully ized and equipped, trained to the minute, and with high esprit ts any call, whether it be from the State Department for enforce- t of the Monroe doctrine or whether it be from some other de- ment of the Government, as in the recent case of protecting the s from the depredations of bandits. The policy of the Marine s is to be of the greatest possible use to the people and to the ernment of the United States in peace as well as in war. The iness for service of the expeditionary force at Quantico makes ully confident that we will be able to live up to our policy.

November last, within a few hours after the call of the Post e Department, the men from Quantico and San Diego were ding trains, mail trucks, and post offices, and not one dollar was n from the mails during the four months that they were guarded he marines. They have all been withdrawn. The last man e home on the 15th.

antico is also a reservoir from which we draw men for sea and ropical service and into which are poured the men returning e. I wish to urge as strongly and as earnestly as I am capable eing that no reduction be made in the enlisted strength, either ange in the basic law or by means of appropriations. We need e man of the 21,000 authorized for this year.

NEED OF ADDITIONAL OFFICERS.

conclusion, I deem it essential to point out the vital importance aintaining the officer personnel at a number somewhat in excess e number representing 4 per cent of the enlisted men appro- ed for. Briefly, the reasons for requiring the additional officers e following:

) The quota of officers allowed the Marine Corps is much less that allowed either the Army or the Navy.

or our line and staff departments the law provides 4 per cent of enlisted men; in the Navy for the line the law is 4 per cent, and e Army it is about 5½ per cent. The bill just reported by this mittee provides for 115,000 men and 11,000 officers, which is t 9½ per cent.

r. KELLEY. That is the natural surplus that would be required for oses of expansion in case of sudden necessity.

eneral LEJEUNE. Yes, sir.

r. KELLEY. I think that is sound doctrine.

General LEJEUNE. (b) Fifty officers of the author required for assignment to the gendarmerie of Haiti a national police force of Santo Domingo. They are included per cent, and we have to provide 50 additional officers.

(c) A larger quota of officers is needed in the Marine (account of the fact that it is divided into such a large n small detachments. If it were concentrated in one po would be necessary.

(d) Aviation requires a quota of officers of 10 per cent enlisted strength.

(e) It is essential to the future efficiency of the Marine (a sufficient number of officers should be provided to permit or being given an opportunity to receive a military education Marine Corps officer schools. We took in a large number of during the war and we have to send them to school to bro m education. They came in after three months' training in an training camp, and we have to send them to school to co education.

(f) In common with all military and naval service it t much longer to train officers than it does to train enlist met some excess of officers should be allowed. There is no in my part of filling the quota of officers. In fact, our estim vide for 100 officers less than the total quota. I ask that mates be accepted.

Finally, I wish to assure the committee that we will con do all in our power to conform to the expressed wishes of (I have outlined our policy and our needs, but the de the hands of Congress. Whatever that decision may be, we our best to build up the efficiency of the Marine Corps and to it the finest military organization in the world.

Mr. KELLEY. Which one of your officers will discuss with the mittee the distribution of the 20,000?

General LEJEUNE. I will myself, sir.

Mr. KELLEY. Have you a list showing the distribution?

General LEJEUNE. Yes, sir; the distribution of both men. Those lists represent the authorized complements. 1 of men actually at the different stations varies slightly fr day.

Mr. KELLEY. You will put in the record this table of d

General LEJEUNE. Yes, sir.

NUMBER OF MEN REQUIRED AT SEA.

Mr. KELLEY. The total number required at sea is 1,938?

General LEJEUNE. Yes, sir.

Mr. KELLEY. Just how do you arrive at that num ?

General LEJEUNE. That is the number actually at 1 was made up a few days ago, but to-day there are less, because the *Columbia* was put out of commi t

Mr. KELLEY. Are they on other than the capi smi

General LEJEUNE. They are chiefly on the oi i have detachments on some ships which are perro n For instance, in the West Indies the small cruisers tneic

3 men, and at Constantinople we have some men, as well as a, but they are chiefly on the capital ships. I might add that capital ships which the treaty provides shall be scrapped we arines on one—64 men on the *Connecticut*.

KELLEY. What is your quota for capital ships?

ral LEJEUNE. It varies with the size of the ship.

tary DENBY. The quota is not larger than 90.

KELLEY. Ninety is the maximum?

tary DENBY. Yes.

ral LEJEUNE. That is the flagship quota. We put a regular ment on board and an additional number of men when it is a . The quota of marines is really fixed by the Bureau of Navi- a part of the complement of the ship, and it varies from 90 o 64 on the capital ships and on the other ships according to ls of the service.

KELLEY. The number is more or less elastic between 64 and 90?

ral LEJEUNE. It is, but it is based on the duties which the men en given on board ship. It is a matter that has been thrashed years.

KELLEY. Do they have some duties in connection with the on of the ship?

ral LEJEUNE. Yes, sir; on each ship a part of the battery is d to the marine detachment, and it forms a part of the battle f the ship. The marines aboard ship are treated in no dif- way from the enlisted men of the Navy.

KELLEY. Do you know how many marines would be assigned es on a ship which enlisted men of the Navy would be re- to do if marines were not carried?

ral LEJEUNE. They would practically replace man for man, e the duties performed by marines are the same as would be ned by enlisted men of the Navy.

KELLEY. If there are 90 marines on board ship, that would be lent to adding 90 more men to the enlisted personnel of the

ral LEJEUNE. Yes, sir.

KELLEY. On that ship?

ral LEJEUNE. Yes, sir.

tary DENBY. They all have battle stations.

KELLEY. If they were not there Navy men would have to be to take their places if all the stations were filled?

tary DENBY. Speaking broadly, that is true.

KELLEY. On the battleships?

tary DENBY. Yes; on the battleships that is true.

KELLEY. So, in figuring the personnel of a battleship, Mr. ury, the marines should be taken into account as a part of the ment?

tary DENBY. Yes. They man the secondary batteries and mes the turret batteries, but, as a rule, the secondary batteries.

KELLEY. In case you are a little short of marines you could ly make a little saving there.

ral LEJEUNE. We have made a saving on two ships. The *Con- t* will go out of commission, I presume, as soon as the treaty ied, or shortly thereafter, and the *Columbia* has already gone

out, so in those instances there is a saving of approx-
and if any of the others go out of commission we will
ber of men on board those ships, because ships in reserve or
any marines.

Secretary DENBY. And none of the new building program
any marines. The light cruisers would not carry marines.
like to qualify that statement.

General LEJEUNE. The two new battleships will carry
Colorado and *Washington*.

Secretary DENBY. Yes; and the light cruisers and
may, but I do not think the regular complement of mar-
aboard. However, that will not make a change in the es-
cause only three of those scout cruisers will come in next year.

Gen. LEJEUNE. I will say this, that the *Delaware* and
Kota are provided to be scrapped and the men aboard
transferred aboard the *Colorado* and the other battle-
p.

Mr. KELLEY. I imagine the Secretary would want to
until the new ones take their places?

Secretary DENBY. Yes, sir; they are now a part of the
and they would be kept on the old ships until the new

Mr. KELLEY. You have not brought up your dis-
personnel, Mr. Secretary, but I suppose in any event you
keep the 18 battleships?

Secretary DENBY. I have not brought that table down yet;
not been able to go over it.

GUARDS FOR NAVY YARDS, NAVAL STATIONS, ETC.

Mr. KELLEY. The next is for guards for navy yards, 4,379.

General LEJEUNE. That is for all navy yards, naval
munition depots, and naval prisons.

Mr. KELLEY. And is that the number you have now?

General LEJEUNE. That is the number we actually have
it represents a cut of about 1,500 from what they formerly
they have been cut everywhere and we have cut them down
nearly the limit. I have a folder full of letters from
asking for more men.

Mr. KELLEY. Everybody wants the marines?

General LEJEUNE. At Bremerton, Pearl Harbor, Mare
so on.

Mr. KELLEY. If it should happen that the navy is
tially tied up this coming year, would that increase the
number of marines necessary?

General LEJEUNE. We have only had one place
year—New Orleans. We attempted to reduce the
the commandant protested so vigorously and pointed out
necessity for marines that we did not cut
pointed out that he had been deprived of his
that the stores were all there; that the buildings
that he did not have the workmen, who furnished
so we did not cut down the force at all; we left it as it
So I should say, judging by that experience, that

material change in the number of men needed unless the yards abolished completely and all the stores and materials removed abandoned.

PHILADELPHIA NAVY YARD.

Mr. KELLEY. Take the Philadelphia yard, where I notice that you 302.

General LEJEUNE. That represents three groups of men: Men engaged in guarding the navy yard; men engaged in manning the fire department—the marines there constitute the entire fire department of the navy yard—and the men who have to be employed in doing the cooking, cleaning, and the clerical duty, and the painters and carpenters. This last group is called the barracks detachment. The present complement is a cut of 150 from the original complement. Had 450 men there originally and cut it down to 302.

KELLEY. Do you think if the yard were not used much next year that it would require that number?

General LEJEUNE. I do not think that we could make much of a use of it here.

Mr. KELLEY. Mr. Secretary, I suppose this would be one of the places where you would concentrate pretty heavily on storage, the storage of ships, etc.?

Secretary DENBY. Yes, sir.

Mr. KELLEY. And the storage of supplies?

General LEJEUNE. That navy yard is all open. It has only a wire fence, and it also has a very long water front.

Mr. KELLEY. It seems like a large number of guards.

Secretary DENBY. I do not know the extent of the territory to be guarded.

Mr. KELLEY. It is a large place.

General LEJEUNE. But no matter whether active or not, it is quite obvious that the guard is necessary unless the yard is completely closed.

WASHINGTON NAVY YARD—MARINE BARRACKS.

Mr. KELLEY. How about the yard here in Washington—you have a barracks detachment?

General LEJEUNE. At the navy yard?

Mr. KELLEY. Yes, sir.

General LEJEUNE. There are two posts here in Washington, the navy yard and the marine barracks proper. The navy yard detachment guards the buildings and supplies, and so forth, at the navy yard, and the other detachment represents our correspondence school.

Mr. KELLEY. That is the Marine Corps institute?

General LEJEUNE. Yes, sir; which conducts the correspondence with the marines all over the world.

Mr. KELLEY. How long has that been in existence?

General LEJEUNE. It was organized about two years ago, and about a year and a half ago it was moved to Washington. While the men engaged in this work they are trained and drilled and are ready in any emergency.

Mr. DAVIS. How many men have you engaged in that particular

General LEJEUNE. All told, about 225. We are enrolled, and our school is based on the International Correspondence School in Scranton. We have the same textbooks as the Army. The cost to the Government is very small. Exclusive of the officers and men engaged in it, it is less than \$4 per man. We give this course without any charge to the men if they took it from the International Correspondence School. It cost them from \$100 to \$200 each. We think the service makes it worth while to keep up the instruction, the men are available in case of an emergency.

Mr. DAVIS. How many are there at Washington?

General LEJEUNE. At the navy yard about 150 men.

Mr. DAVIS. I mean engaged in this correspondence work?

General LEJEUNE. Running the correspondence school. About 225.

Mr. DAVIS. In Washington?

General LEJEUNE. Yes, sir. We put them in barracks where they were available, and they were away from the posts. The institute has been of great benefit to the men. The criticisms of the military service for many years is the fact that we have taken boys in the Army, Navy, and Marine Corps that they have gone through their enlistment and received no actual educational advantage as a result of their duties required them to learn. This school gives them the opportunity to study. He is not compelled to be compelled to take the course, but we offer it to him.

Mr. DAVIS. And most of them accept it?

General LEJEUNE. A great many. It has removed the criticism. The parents are very much pleased. They are about it. Quite a number now get their diplomas. They have had letters from men who have been through the course of study has enabled them to get a better life than they otherwise could have secured. It makes better soldiers. Unquestionably a man who is better than a man who is untrained, illiterate, and ignorant.

Mr. DAVIS. You think a man educated both mentally and physically is a little superior to the man educated in only one of these things?

General LEJEUNE. Yes, sir; unquestionably. I think that the best kind of a soldier was the man who was a good thing, but who blindly obeyed orders. That was the kind of a man that appeared. I know, from personal experience, that a man's mind is the more training he has, the better.

Mr. KELLEY. You run the fire department in the navy yard?

General LEJEUNE. Yes, sir.

GUARDS FOR FIRE DEPARTMENTS AT NAVY YARDS.

Mr. KELLEY. About what percentage of the navy yards are used in the fire department?

General LEJEUNE. There were 35 in the fire department to the last report.

Mr. KELLEY. You do that at the request of the Navy and Docks?

General LEJEUNE. It is done by the commandant of the yard. He has the fire engines, hook and ladder, and hose carts and the marines attend them. That saves the Bureau of Yards and Docks the expense of having it.

Mr. KELLEY. And that is true of all the yards?

General LEJEUNE. The marines form a part in the fire department of every yard, but there are different systems in vogue in every yard. In New York we had the fire apparatus at the barracks and the commandant turned out and went to a fire. In some yards they have a separate detail of men who do nothing else but stand by, like they do in every fire department.

BOSTON NAVY YARD.

Mr. KELLEY. At the Boston yard, 125?

General LEJEUNE. That includes the men guarding the Boston Navy Yard and guarding places like Squantum, which forms a part of the Boston Navy Yard, where there are a great many stores accumulated.

Mr. KELLEY. You might possibly cut that a little next year?

General LEJEUNE. Not very many.

Secretary DENBY. What is the number at Squantum?

General LEJEUNE. About 15.

Mr. KELLEY. And 110 at the Boston yard?

General LEJEUNE. Yes, sir.

Secretary DENBY. At Squantum we have a lot of stores and only 15 men.

Mr. KELLEY. Of course, I can see, even if the yard is closed down, we will have to carry storage until you get cleaned up.

Secretary DENBY. And it is more important.

Mr. KELLEY. It is necessary to have it properly guarded. It is just a question of what is the right number.

General LEJEUNE. I am entirely in accord with bringing the number engaged in guard duty down, because that will give us more men for other purposes.

Mr. KELLEY. Please look into that very carefully as you go along?

General LEJEUNE. Yes, sir. We will not give the stations a man more than necessary. We always give them less than the commandant thinks is necessary.

CHARLESTON NAVY YARD.

Mr. KELLEY. Charleston, 150. That seems like a large number.

General LEJEUNE. They have several outside activities there. For instance, you will notice that at some of the stations we have a separate detachment for the naval hospital. In Charleston we do not. We have coal piers which they have to guard and a little prison where they have a detachment of about 20 men, and also other outside activities which they have to protect.

PORTSMOUTH, N. H., NAVAL PRISON.

Mr. KELLEY. Portsmouth, N. H., Naval Prison, 152.

General LEJEUNE. There are from 800 to 900 prisoners. Comparatively few of the prisoners are in the prison; they are in wooden huts that are outside the prison.

Mr. KELLEY. What has happened to that fine marble General LEJEUNE. They have about 250 in the ce prison. The others are in temporary buildings which during the war. The prison, by the way, is in very fine

Mr. KELLEY. Who runs the prison?

General LEJEUNE. A marine officer.

Mr. KELLEY. Who?

General LEJEUNE. Lieutenant Colonel South went there th last July. There has been improvement there; he has reorganized it.

Mr. KELLEY. Instead of the prison run by Mr. Osborne.

Secretary DENBY. You would not know the prison now.

General LEJEUNE. It is the cleanest place I ever saw in

Mr. KELLEY. That remark has no reference to the ti Osborne ran it?

General LEJEUNE. I never saw it at that time.

Mr. KELLEY. Who did you say was in charge?

General LEJEUNE. Lieutenant Colonel South, who was marine officer of the Atlantic Fleet with Admiral W Admiral Wilson was detached, on Admiral Wilson's reco Colonel South was ordered to take command of the

Mr. KELLEY. Do they work in the yard?

General LEJEUNE. Yes; they work in the yard.

Mr. KELLEY. Performing useful labor?

General LEJEUNE. Yes, sir; but not in competition with civi That is, they do no skilled work. They do outdoor work they do a tremendous amount of work for themsel clothing and shoes and repair shoes. Colonel South saving in the upkeep of the prison, in the equi or which they have to use in cold weather, that will t to about \$55,000, by developing the work inside of t p

Mr. KELLEY. What is the average length of time kept in prison?

General LEJEUNE. From six months up to seven years there are very long terms of imprisonment given to committed crimes, they are sent, under the Secretary's United States prisons at Atlanta and San Quentin.

Mr. KELLEY. These are mostly short-term prisoners?

General LEJEUNE. These are military prisoners who mitted military offenses.

Mr. KELLEY. What about the criminals?

General LEJEUNE. They are kept in cells. T are all right. Colonel Smith has a system that w come to the prison they are put in cells for a cer and then he releases them on probation and pu in porary buildings; 100 men will live in a buildi very similar to the conditions under which the barracks, except that they are kept within the p

Mr. KELLEY. They are worked in groups of five?

General LEJEUNE. Yes, sir.

Mr. KELLEY. And there is a guard with every five?

General LEJEUNE. It depends on the class of If digging ditches or are working together, two

th a large group of prisoners. If they send two or three men do a job, they always have one sentinel. It varies according class of work.

KELLEY. You include in the navy-yard group the base at s Island?

eral LEJEUNE. No, sir; that is carried as a separate group—d under permanent detachments.

PERMANENT DETACHMENTS FOR TRAINING STATIONS, RECRUITING SERVICE, HEADQUARTERS, STAFF OFFICES, SUPPLY DEPOTS, ETC.

KELLEY. Under "Permanent detachments for training sta-recruiting service, headquarters, staff offices, supply depots. e Corps Institute, Quantico and San Diego, and marine band," s 2,469. Quantico should not be in there.

eral LEJEUNE. Yes, sir.

EXPEDITIONARY FORCE EAST COAST—QUANTICO.

KELLEY. You have down below that "Expeditionary force, east, 3,078," which seems to be the number at Quantico in an-place.

eral LEJEUNE. Yes, sir. The permanent detachment at Quan-sists of the men who are doing such work as running the plant, the water works, also the carpenters, painters, plumbers, cians, and the force necessary in the supply depot and the com-v.

KELLEY. You have post permanent detachments 457?

eral LEJEUNE. Yes, sir.

KELLEY. The Third Brigade and Fourth Brigades, 3,078?

eral LEJEUNE. The whole force of the Third and Fourth Bri-s 3,078. They are the men we have available for an emergency.

KELLEY. The 3,078, what do you call them, the expeditionary east coast?

eral LEJEUNE. Yes, sir.

KELLEY. In the item of post permanent detachment you have ed Quantico?

eral LEJEUNE. Yes, sir.

KELLEY. It should not be included?

eral LEJEUNE. Yes, sir; 457.

PARRIS ISLAND.

KELLEY. You have 1,960 at Parris Island?

eral LEJEUNE. That includes recruits under training.

KELLEY. One thousand two hundred and twenty recruits and st organization.

eral LEJEUNE. The 710 is the permanent force there. That es the men who run the post, just as the men do at Quantico, he prison detachment. We have another naval prison down

KELLEY. Is that why you have to have so many more than at ico?

General LEJEUNE. Yes, sir. That includes the detail of men drill the recruits. We have a permanent detail of men who look over the recruits and carry them through their period of training 10 or 12 weeks.

Mr. KELLEY. You only have 457 permanent detachment at Quantico with 3,078?

General LEJEUNE. The officers and noncommissioned officers belong to the 3,078 train those men. At Parris Island we have sergeants and drill corporals who take the recruits when they come in. They are considered a part of the permanent detachment. We do not have to do that at Quantico. The noncommissioned officers are with the privates in the companies. We have to cut the permanent detachment down by about 500. We have very recently cut off 100.

FOREIGN SERVICE—SAN DOMINGO.

Mr. KELLEY. You have 5,921 in foreign service?

General LEJEUNE. They are the garrisons.

Mr. KELLEY. Are you going to bring any of those home this coming year?

General LEJEUNE. So far as I know, Mr. Kelley, it is the announced policy of the President of the United States to withdraw from Santo Domingo. That has been published and is well known and so I am not violating any official confidence as to his policy the policy of the administration. When that goes into effect, and that arrangement can be made, naturally when the Government can home the marines will come home. In that event we could reduce the Marine Corps.

Mr. KELLEY. Two thousand two hundred and ninety-one?

General LEJEUNE. Yes, sir.

Mr. DAVIS. How many have you there now?

General LEJEUNE. Two thousand two hundred and ninety-one the actual number.

HAITI.

Secretary DENBY. And about 1,700 in Haiti.

General LEJEUNE. One thousand six hundred and ninety-six, that is exact.

Mr. KELLEY. How about Haiti?

General LEJEUNE. In Haiti the force is about 1,700, and it is possible to reduce that force one or two hundred. The force we have this year has an average strength of 21,000 men, and we are submitting estimates for 20,000 men. In order to conform to the President's wishes to bring our force down as much as we can, I should say we could come down to 19,500 men, with the understanding and the express condition that if the force in San Domingo can be withdrawn by administrative action, we will further reduce the Marine Corps to 18,000. In other words, in order to cut down 19,500 men, we will have to reduce the force at Quantico and elsewhere. Then, if we withdraw the entire force from San Domingo during the coming year, by the Secretary's order or by the President's order, we will bring the number down to 18,000 men.

REENLISTMENTS—EXPIRATIONS OF ENLISTMENTS.

Mr. KELLEY. Do you think it is necessary to have 1,500 new recruits under training next year?

General LEJEUNE. During the coming year, based on our estimate of 20,000 men, we will have to enlist fully 12,000 men. That is due to the fact that two years ago we enlisted men for two years and secured a great many such enlistments. On the 1st of July, 1920, the corps was under 16,000 men, and we made a great drive for recruits during the following six months, and that brought us up to about 22,000 men. Now, those men were 2-year men. Those enlistments not only brought the corps up, but it made good the losses from discharges and other causes. Therefore during the 12 months following July 1, 1922, we will have to replace between twelve and thirteen thousand men.

Mr. KELLEY. What percentage of them will reenlist?

General LEJEUNE. The percentage runs along about 25 or 30 per cent.

Mr. KELLEY. Is it no more than that, or have you the exact figures?

General RICHARDS. I have only the figures for the number of men to be discharged during the fiscal year, that number being 12,406.

Mr. KELLEY. How many do you estimate will come back or reenlist?

General RICHARDS. Our estimates run about one man in four.

Mr. KELLEY. It is very much higher than that in the Navy. The reenlistments are about 60 per cent in the Navy.

General RICHARDS. I can not draw any comparison.

Mr. KELLEY. I do not see why you do not get more reenlistments.

General LEJEUNE. I think this year we will get about 2,500 reenlistments.

Mr. KELLEY. How many expirations of enlistment will you have?

General LEJEUNE. We are enlisting this fiscal year about 7,800 men.

General RICHARDS. We have estimated for honorable discharge gratuities, which are contingent upon reenlistment, for 2,233 men. That is an estimate based upon experience. Of course, sometimes there is a difference due to the economic condition of the country.

Mr. KELLEY. That represents the number actually discharged?

General RICHARDS. That represents the number of discharged men who we estimate will reenlist.

Mr. KELLEY. How many discharges are you estimating?

General RICHARDS. We expect to discharge 12,400 men.

General LEJEUNE. A good many of that 12,000 will go out upon medical survey and for other reasons. There are about 10,000 men to be discharged because of the expiration of enlistments. We always have a constant drain of men on account of the tropical service and discharges upon medical surveys, and, also, on account of men discharged by court-martial, men discharged as undesirable; a small number of men who desert, and a small number of men discharged on account of extreme financial dependency at their homes. Therefore, there is a constant flow of men out of the service, in addition to

General LEJEUNE. Yes, sir. That includes the drill the recruits. We have a permanent detail over the recruits and carry them through their period of 10 or 12 weeks.

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General LEJEUNE. The percentage runs along about 25 or 30 per cent.

Mr. KELLEY. Is it no more than that, or have you the exact figures?

General RICHARDS. I have only the figures for the number of men to be discharged during the fiscal year, that number being 12,406.

Mr. KELLEY. How many do you estimate will come back or reenlist?

General RICHARDS. Our estimates run about one man in four.

Mr. KELLEY. It is very much higher than that in the Navy. The enlistments are about 60 per cent in the Navy.

General RICHARDS. I can not draw any comparison.

Mr. KELLEY. I do not see why you do not get more reenlistments.

General LEJEUNE. I think this year we will get about 2,500 reenlistments.

Mr. KELLEY. How many expirations of enlistment will you have?

General LEJEUNE. We are enlisting this fiscal year about 7,800 men.

General RICHARDS. We have estimated for honorable discharge gratuities, which are contingent upon reenlistment, for 2,233 men. That is an estimate based upon experience. Of course, sometimes there is a difference due to the economic condition of the country.

Mr. KELLEY. That represents the number actually discharged?

General RICHARDS. That represents the number of discharged men whom we estimate will reenlist.

Mr. KELLEY. How many discharges are you estimating?

General RICHARDS. We expect to discharge 12,400 men.

General LEJEUNE. A good many of that 12,000 will go out upon medical survey and for other reasons. There are about 10,000 men to be discharged because of the expiration of enlistments. We always have a constant drain of men on account of the tropical service and discharges upon medical surveys, and, also, on account of men discharged by court-martial, men discharged as undesirable; a small number of men who desert, and a small number of men discharged on account of extreme financial dependency at their homes. Therefore, there is a constant flow of men out of the service, in addition to

General LEJEUNE. No, sir. The men that are sick in hospitals or the men who come home sick from San Domingo and Haiti will stay with us only a month or a week until the doctors transfer them to the Veterans' Bureau. They are carried in the casual detachments.

NUMBER OF MEN ASKED FOR 1923.

Mr. KELLEY. What you are asking for is 19,000 men?

General LEJEUNE. 19,500. That means that if the force at San Domingo is withdrawn we will come down to 18,000.

Mr. KELLEY. Could we not make a little further allowance on account of San Domingo and Haiti and cut off these replacements?

General LEJEUNE. We took 1,500 off these tables.

Mr. KELLEY. You have 21,000?

General LEJEUNE. Yes, sir.

Mr. KELLEY. So you are taking off 1,500 there. Now, suppose we took off the 800 for replacements?

General LEJEUNE. We could not do that. We will have to have them.

Mr. KELLEY. Do you not think we could reduce them by that number? That would be a reduction of 2,300 on account of those two items. Could you not stand a shrinkage of 1,200 more?

General LEJEUNE. No, sir; unless you want to close up Quantico.

Mr. KELLEY. If you took these 1,500 out of Quantico, that would leave 1,500 down there?

General LEJEUNE. Yes, sir.

Mr. KELLEY. Suppose you shrunk at the navy yards by, say, 10 per cent, and then out there at Guam you could make a reduction.

General LEJEUNE. I do not know.

Secretary DENBY. We can not take the garrison out of there without the approval of the State Department.

General LEJEUNE. That is a part of the treaty now.

Secretary DENBY. It keeps fluctuating, of course.

Mr. KELLEY. Suppose you took out 5 or 10 per cent at the navy yards where they are not operating at full blast, and then brought home marines from Guam, Haiti, and other places. You could make up 1,200 there.

General LEJEUNE. The whole matter is in the hands of the committee, and we will do the best we can with what you give us; but I can not admit and do not admit that we can do the things the Marine Corps is supposed to do with less than 19,500 men, unless some of those duties are abolished, like the work in San Domingo. When we bring home the men from San Domingo we can come down to 18,000.

Mr. KELLEY. You would not probably replace anybody at Quantico or anybody at Parris Island, because they are in the student class, and if one got sick the place would be empty.

Secretary DENBY. You do not want any empty places in a military establishment.

Mr. KELLEY. You would not replace anybody in San Domingo or even in Haiti?

Secretary DENBY. Yes.

General LEJEUNE. The casual detachment includes men in transit to and from Haiti and San Domingo. It includes the men brought

from those places, and every transport brings them back. It is men who are sick and the prisoners.

KELLEY. I know there are quite a number of men that are not available at the particular moment for service, because they are either in service or coming away from service, or are sick.

General LEJEUNE. Yes, sir; or men who have deserted or are absent without leave, and are brought back by the police. They are lost as part of our strength, and will be a part of the corps presently going to prison, but they are not marines at all, because they will never be out again with a rifle on their shoulders.

KELLEY. There are 3,500 at Quantico—

General LEJEUNE (interposing). We have not taken anybody at Quantico in the casuals detachment.

KELLEY. You figure on 8 per cent at Quantico and Paris Island—

General LEJEUNE (interposing). We have left those places out.

KELLEY. At Paris Island there are about 2,000?

General LEJEUNE. Yes, sir.

KELLEY. You will not need to replace those boys at navy yards?

General LEJEUNE. We have cut down their detachments. We have them to the actual men needed for the duty. For instance, in New York the other day the fleet came in and landed a lot of sick at the hospital. Now, they manifestly should not be carried as a part of the strength of the New York Navy Yard.

KELLEY. Do you not think that in these detachments you could sort by the number that are not available? For instance, at San Domingo, if you had 2,000 or 2,200 and had to bring home 500, that would make it run 2,040?

General LEJEUNE. We will cut down San Domingo according to the figures. You ought to see those detachments. The men are exposed there to bad climatic conditions and must suffer privations.

DAVIS. In the case of San Domingo I suppose the danger to the health of the men is greater than at almost any place?

General LEJEUNE. Yes, sir; there is a great deal of malaria down there.

Taking the entire force in Haiti and San Domingo the statistics show a large number of men unfit for duty. The small detachments are far in the interior, and it requires a large number of men to keep them supplied. You should see the difficulties we have in supplying those men who are staying up there in the valleys and the mountains. For instance, in order to supply the men stationed at Hinche, we have to carry the stores from Port Au Prince to a town called Gonaives and then by rail to another little town, then by truck to some other place, and then by pack train to the camp. We have to unload and reload four or five times, and it takes many men to supply the troops in the interior.

DAVIS. Is it or is it not a fact that the marines, as a body, are exposed almost all the time, both in war and in peace?

General LEJEUNE. They are. We have made our estimate upon the basis of what will be required of the men during times of peace. We have not made any estimate of what we would need in case of war. We are trying to base our estimates, and we have based our estimates, on the need of men in peace time.

DAVIS. Without saying anything about the busy life of the men in the Army or in the Navy, from the experience and observation

I have had, the Marine Corps is the busiest lot of public service. In other words, the Marine Corps occupied practically all the time.

General LEJEUNE. We are looking for an opportunity to be ourselves useful.

Mr. DAVIS. They are doing something all the time.

General LEJEUNE. Yes, sir; you are right.

Mr. KELLEY. General, of course I realize that there is a percentage of the Marine Corps to the enlisted men of those duties that you mention are separate and apart from the Navy, except as to those on ships, but we have been working along a good many years upon the basis of one-fifth of the men of the Navy for the Marine Corps. However, with all the drain on you from Central America and the extra duty at our navy yards, I suppose what would be the reasonable thing to put down the number that is necessary to perform the duties, to give you whatever that is. At the same time, we would not strain that relationship too far. If you had 17,500 men, that would be about 25 per cent of what we are thinking of. I will say that in all my experience here I do not know of a military man who sought more to carry out the duties of a military man and succeeded at it any better than you have, and I am much in your favor at this time. Just what we will do, we will try to work out. I want that statement to appear in print.

General LEJEUNE. I appreciate that very much. I am glad to conform to the wishes of Congress, and will conform.

PAY OF OFFICERS, ACTIVE AND RESERVE LIST.

Mr. KELLEY. We will take up the item for pay of active and reserve list.

General RICHARDS. These estimates, Mr. Chairman, show the average strength of the Marine Corps of 20,000 enlisted men.

Mr. KELLEY. The \$1,048,462.18 printed in the bill?

General RICHARDS. For the officers. There is a provision for pay of officers of \$337,733.83. That is expended for the base pay and a reduction from last year's estimates. It includes 100 lieutenants, 100 warrant officers, 100 colonels, 34 warrant officers, and 100 lieutenants.

Mr. KELLEY. For the pay of officers you are talking of?

General RICHARDS. That is right, sir.

Mr. KELLEY. Is that based on the existing law which was in effect the 1st of July or the previous law?

General RICHARDS. It includes the bonus allowed by the law which, in fact, does expire on the 1st of July, but the appropriations assume that that bonus, or something similar, will be provided to continue.

Mr. KELLEY. That will probably be done or it will probably be done, but it will not be done by this bill, so I think we will have to refigure under the old law. How much would that item be on the old law?

General RICHARDS. The amount necessary to cover the bonus for officers only is \$673,620. I have also included in the so-called McKenzie bill.

: KELLEY. We will not put that in, because we will handle that deficiency after it is passed. The only thing we would be authorized to do would be to carry the pay as we understand the law be after the 1st of July, and then whatever increase there is be carried later in the year in some other bill. How much did say will come off of that?

neral RICHARDS. \$673,620.

: KELLEY. That makes \$3,374,842.18?

neral RICHARDS. Yes, sir.

: KELLEY. You are sure that is the amount you want for the rs' pay?

neral RICHARDS. Yes; that is the exact figure, and I will file my hearing the letter of explanation which contains that figure.

: KELLEY. I understood you to say at the beginning that the 8,462.18 was—

neral RICHARDS (interposing). \$337,733.83 less than what was l for last year or less than what is appropriated.

: KELLEY. And that was due to the reasons you stated in your er a few moments ago?

neral RICHARDS. Yes. We are asking for less officers.

: KELLEY. How many less officers are you asking for?

neral RICHARDS. Three brigadier generals, 1 colonel, 34 warrant rs, and a shortage of 100 second lieutenants.

: KELLEY. Less than you had last year?

neral RICHARDS. Yes, sir.

neral LEJEUNE. Less than we estimated for last year. We esti- for the full number of officers for this year. We are going rn in \$200,000; we have already reported a surplus of \$200,000 ve are going to turn in.

: KELLEY. This is for the exact number of officers you have?

neral LEJEUNE. That we expect to have next year.

: KELLEY. And is it the exact number you have now?

neral LEJEUNE. No, sir. We have 30 additional officers whom e pledged to appoint; they have passed examinations, and they gathered together a year ago and have been under a course of iction, so we have included them in next year's estimate.

: KELLEY. I think it would be a good thing to put in the rec- table showing the number of officers in each rank.

neral RICHARDS. I have here, indexed, the full details of the metical calculations by which these estimates were arrived at, I would like to make those a part of the hearings, for they er this as well as any other question that may arise.

: KELLEY. All right.

neral LEJEUNE. Those 30 young men will be nominated within r days, as soon as they finish their physical examinations. It en the practice for a number of years to appoint some officers e Marine Corps from the Naval Academy of each graduating

: KELLEY. You have the details making up the \$3,374,842.18?

neral RICHARDS. Yes, sir.

: KELLEY. And the amount of pay each group receives?

neral RICHARDS. Yes, sir.

PERCENTAGE OF ACADEMY GRADUATES ASSIGNED TO MAR

Mr. BYRNES. What percentage of the Academy graduates generally assigned to the Marine Corps?

General LEJEUNE. Up to this year the needs of the Navy have been so great that we have not gotten very ginning in 1915 they began to make some appointments of the graduates of the Naval Academy, but prior to that had been no appointments for 16 years. To-day there are Naval Academy graduates among the officers of the Marine Corps and we hope to get this year, to help the Naval Academy us, about 25. That is the number we would like to get.

NUMBER OF COMMISSIONED OFFICERS.

Mr. KELLEY. What is the total number of officers in the Corps now?

General LEJEUNE. Nine hundred and forty-two.

General RICHARDS. These estimates include all commissioned officers, 58 marine gunners, 58 quartermaster clerks, and 42 pay clerks making a total of 1,154.

General LEJEUNE. The 942 represents the actual number of officers on the active list of the Marine Corps to-day.

Mr. KELLEY. How many commissioned officers are you expecting next year?

General LEJEUNE. That is what we are asking for, a total of commissioned and warrant officers.

Secretary DENBY. Do your 900 include commissioned and warrant officers?

General LEJEUNE. No, sir; the 942 includes the number of officers who are in the corps to-day.

Mr. KELLEY. And you are asking the same number for next year?

General LEJEUNE. We are going to appoint 30 more officers to-day.

Mr. KELLEY. Will any go out?

General LEJEUNE. Only from the usual casualties.

Mr. KELLEY. Then the number will be 972?

General LEJEUNE. Yes; and then we expect to have 1,000 officers from the Naval Academy appointed.

NUMBER OF WARRANT OFFICERS AND PAY CLERKS.

Mr. KELLEY. How many warrant officers and pay clerks do you have?

General RICHARDS. One hundred and fifty-four.

Mr. KELLEY. And that is the number you are asking for?

General RICHARDS. Yes, sir.

Mr. KELLEY. And you have the same number of warrant officers now?

General RICHARDS. What I am asking for is 154 commissioned officers and 158 warrant officers.

Mr. KELLEY. One hundred and fifty-four.

General RICHARDS. Yes, sir.

Mr. KELLEY. How many warrant officers and pay clerks do you have?

ral RICHARDS. I have not the details of the calculations for it with me, only a record of the differences between this year and last year.

KELLEY. Have you increased those officers?

ral RICHARDS. No, sir; there are less this year than last year. The difference is this: Three brigadier generals, 1 colonel, 34 war-fighters, and 100 second lieutenants. We have that number less than we estimated for last year.

KELLEY. What amount of this is for the reserve list?

ral RICHARDS. For the reserve list there are 482 provisional officers of all ranks who draw \$12 a year; there is what is known as the active reserve officers confirmed—one major, one captain, and 100 second lieutenants. The total of the item that is in there for the reserve amounts to \$8,263.18, a very small amount.

PAY OF OFFICERS ON RETIRED LIST.

The next item is for officers on the retired list. As it was made up, it gave the grades that were on the retired list when the estimate was made up last September, and the total cost is \$379,047.50. It is a contingent fund of \$35,000, which was to allow for any changes in the retired list from the time it was made up until the year is closed.

KELLEY. Somebody might be retired because of wounds.

ral RICHARDS. Wounds, disabilities, or voluntary retirements are provided for in the law. It also includes any increased pay that might be due to any retired officer assigned to active duty. The present law is not to assign any retired officer to active duty. So the law is always included, but of course if there are no changes it is not used.

KELLEY. If that were not included and some officers had to be retired during the year for disabilities you would not have any money with which to pay them?

ral RICHARDS. Possibly we would not have any money with which to pay them if the vacancies on the active list were filled.

KELLEY. I notice some changes in the text. You have three brigadier generals instead of four. Is that due to somebody's death?

ral RICHARDS. Yes.

ral LEJEUNE. General Pope died, for one.

KELLEY. The changes you have made in the text are made to conform to the actual situation as it stands now?

ral LEJEUNE. Yes, sir.

PAY OF ENLISTED MEN ON ACTIVE AND RESERVE LIST.

KELLEY. The next item is "For pay of enlisted men." You have to figure that over, will you not?

ral RICHARDS. In order to make it clear I have here the items that were expended in 1921. Of course, that pay of enlisted men includes the pay of the active and reserve list, base pay, foreign-service pay, longevity pay, aviation pay, pay of court-martial prisoners, allowance on discharge, traveling expenses, interest on deck-cooks' and messmen's pay, etc.; all of the details are given, and we have endeavored to illuminate the committee by analyzing

everything that was expended last year under the correspondingly what is in this estimate for the same year.

Mr. KELLEY. And you will put that in the record?

General RICHARDS. That will all go in the record: yes.

Mr. KELLEY. That is based upon the increased pay of the 1920 act?

General RICHARDS. Yes, sir: in the case of the enlisted added that increase right in with their regular pay, so I do to give you a separate figure as to the bonus for enlisted.

Mr. KELLEY. When you get that figured out will you tell me the exact amount?

General RICHARDS. Yes, sir.

Mr. KELLEY. I suppose this is based on 20,000 men?

General RICHARDS. On 20,000 men, and I have also added and broken up this whole appropriation into its several parts and put a figure there so that in the event the committee to make a reduction they would know exactly how to appropriate that I will put it in the record.

Mr. KELLEY. That will show us how much of a reduction made per thousand men.

General RICHARDS. Yes; it is, roughly, about \$462,650 per thousand men, but it is not safe to go much further, because if you much more than 1,000 you have got to take care of overhead. The same proposition will not follow.

Mr. DAVIS. Your overhead will be virtually the same, and you do cut it down 1,000.

General RICHARDS. That figure would be all right for 1,000; it would be approximately all right for 2,000, but when you get to 3,000 or 4,000 then there are other elements that enter in and must be considered.

Mr. KELLEY. So we will have it here and to be used with reference to it, I wish you would send us the pay under this estimate for 18,000 men, and 17,500 men on the basis of the old rate.

General RICHARDS. I will do that.

General LEJEUNE. I might interject here that last year when appropriated for 21,000 men we reduced the noncommissioned officers proportionately so as to get down to those figures. We will not make any promotions until the reduction was effected. To-day the proper proportion of noncommissioned officers is 17,500 men.

Mr. KELLEY. Suppose you first reduce this \$11,566,000 to what it should be based on the old rate, and then, with that basis, determine what 19,000, 18,000, and 17,500 men would cost.

General RICHARDS. Very well. There is in the estimate for 18,000 men \$137,306,32 for the reserve. These details are given in the sheet which I will file with the hearing.

General LEJEUNE. That includes the fleet?

General RICHARDS. It includes the fleet and the enrolled fleet confirmed.

PAY ALLOWANCES FOR ENLISTED

The next item is for the retired list. There is a list of the

ment, and the bill gives this list. I wish to add that there is no contingent fund for men who might be placed on the retired list. The calculations, only the grades on the retired list at the time estimates were made up last September.

KELLEY. Does that embarrass you at all?

Mr. RICHARDS. It does not.

KELLEY. The changes you have made in the text of the bill inform to the exact number that are on this list now?

Mr. RICHARDS. Yes.

KELLEY. There is new language in this item, "one second of band."

Mr. RICHARDS. He has already been placed on the retired list.

KELLEY. I wonder why that is in italics.

Mr. LEJEUNE. He just retired a few months ago.

KELLEY. And he is entitled under the law to be retired?

Mr. LEJEUNE. Yes, sir; he finished his 30 years' service about 18 months ago and went on the retired list.

KELLEY. The pay of the men on the retired list was not affected by the temporary increase in pay, was it?

Mr. LEJEUNE. They all get their base pay on the retired list.

KELLEY. And not the increased rates?

Mr. LEJEUNE. No; not the bonus.

Mr. RICHARDS. There is no bonus for the retired men.

KELLEY. We increased the pay, but when they retire do they get their base pay?

Mr. RICHARDS. They retire on their regular rate of pay; the increase is not carried to the retired list.

Mr. DENBY. But they are retired at three-quarters of the regular rate of pay they were getting at the date of retirement?

Mr. RICHARDS. Yes, sir. I will answer that question definitely. I am quite satisfied that the bonus did not go to the retired list.

KELLEY. If that were true this amount would be smaller.

Mr. RICHARDS. I will answer that question specifically, but I think the bonus is only given in the case of the commissioned officers on the retired list who are on active duty, and only while on active duty. Neither the retired officer nor retired enlisted man receives the law the so-called bonus of 1920.

Mr. LEJEUNE. If it was in the form of increased pay, they would get their increased pay; but if it was in the form of a bonus, they would not get it.

KELLEY. If that were done, it would have the effect of some men on the retired list at one rate of pay and others at another rate of pay, and I do not think that was the intention.

Mr. DENBY. I think the retired pay is based on the base pay.

Mr. RICHARDS. The old pay, excluding bonus.

KELLEY. And not the 1920 pay?

Mr. RICHARDS. No, sir; not the bonus.

KELLEY. Do you know on which these figures were based?

Mr. RICHARDS. The 1920 act providing bonus does not enter into these figures for retired officers or retired enlisted men; not

KELLEY. However, you had better look into it so as to make

General RICHARDS. That is my answer, and while I will have to modify it I will make the inquiry as you

NOTE.—As to the pay of officers and enlisted men when retired, the question specifically, upon inquiry I learn that section 13 of approved May 18, 1920, specifically provides:

"That the increases provided in this act shall not enter into of the retired pay of officers or enlisted men who may be retired July 1, 1922."

UNDRAWN CLOTHING.

Mr. KELLEY. The next item is undrawn clothing.

General RICHARDS. Yes; we have increased that, and this is to pay the savings that come to the enlisted force by the new system or, rather, the restoration of the old system.

General LEJEUNE. You see there are some men who do not draw clothing allowance and that is taken out of their pay; other men who are careful and take good care of their clothing do not draw all of it; they get the benefit of that and the Government gets a benefit by a saving of \$1,332,000 in the actual amount of clothing issued to the men during the year.

Mr. KELLEY. Just tell me about that again.

General LEJEUNE. We make a money allotment to the men all the clothing they think they need, as during the World War; at that time we issued clothing gratuitously as which resulted in great extravagance and great waste; January 1, 1921, we returned to the system which was in effect before the World War. That system was based on making a money allowance for the clothing drawn each year by each man. The requirements for a good man, the average man, and a money allowance. Now, all the clothing drawn by a man in the year is charged against his money allowance; if he does not use his money allowance, the value of clothing drawn is charged against his pay account, and the Government gets no benefit; if he does not exceed it, if he is very careful and saves his money, when discharged he gets paid for it. That is as old as the Republic.

Mr. KELLEY. Because these men are so careful you save \$250,000 to them in cash next year?

General LEJEUNE. Yes, sir; but we get back a great deal more.

Secretary DENBY. It is the difference between what they are allowed to draw and the thing and give them the money to buy the clothing; they are allowed barely enough to get through and in the meantime they save money. What they do save they get credit for.

Mr. KELLEY. What is the clothing allowance?

General LEJEUNE. \$115 per annum. That is the amount of clothing allowed in the first year of the man's first enlistment. That is the same for all other years.

Mr. KELLEY. How much do they get other years?

General McCawley. \$47.78 on second and subsequent enlistment.

Mr. KELLEY. The surplus that remains for the Government is relative until their enlistments expire?

General McCawley. It is only paid for the first year.

Mr. KELLEY. And when discharged they get the surplus and pay them the difference in clothing?

eral McCawley. Yes, sir.

KELLEY. How many men will be entitled to this undrawn allowance during the coming year?

eral RICHARDS. It was suspended on July 14, 1917. For the ending June 30, 1917, there were 2,861 men discharged, with an average saving of \$37.44 for each man discharged. That does not mean that they all drew the average; we can not, however, give the average without considerable labor and research. There were some men who were overdrawn, who paid money to the Government at the end of the year.

KELLEY. That does not go into the Treasury of the United States?

eral RICHARDS. No, sir.

KELLEY. It goes to the credit of the Marine Corps?

eral RICHARDS. Yes, sir.

KELLEY. How many do you estimate will be entitled to draw allowance at the end of the year?

eral RICHARDS. For the 12,406 discharged we allowed \$20 each credit for undrawn clothing.

KELLEY. That is just a fair guess?

eral RICHARDS. Yes, sir. That gives \$248,000, and we put down \$250,000.

etary DENBY. Have you any estimate of the number of men who have been paid out of their own pay for clothing?

eral RICHARDS. It is really difficult to give you that, Mr. Secretary, because it involves such detail. Suppose a man during his first year's enlistment does overdraw, it is immediately adjusted and added to his account. If in the next year the excess of clothing he has drawn and paid for enables him to save in subsequent years, in some cases it does, what is really being restored to him at the end of the year is pay that was withheld from him to satisfy that overdraft during the earlier days of his enlistment.

etary DENBY. You said that only honorably discharged men receive whatever they had managed to save?

eral RICHARDS. Any man, honorably or dishonorably discharged.

eral McCawley. I made that mistake.

KELLEY. You estimate on 12,406 expirations?

eral RICHARDS. We estimated that because we have quite a number of short-term men enlisted for two years.

eral LEJEUNE. Next year will be the big year for discharges, that the number will come down. That will be the last hard year because we have done away with the two-year enlistments. In about 200 a month of men who are separated from the service for reasons other than expiration of enlistment. The 200 include annual surveys, summary court discharges, general court-martial discharges, undesirable discharges, and desertions. It amounts to about 2,500 men a year.

KELLEY. For what besides clothing is this money spent?

etary DENBY. We have to remember the nature of the man's work. A man doing yeoman duty would not wear out his clothing as fast as a man on some other branch of the detachment, doing a different kind of work. You average it up and it makes a very modest sum.

Mr. KELLEY. It is what they allow in the Army?

General McCawley. Yes, sir.

Mr. KELLEY. How many?

General McCawley. I could tell you very easily by reference to the Army order on the subject. Our allowance table of 1921 was \$149.49; that is, for the first year of enlistment, year it is \$115.24, a reduction of over \$34.

Mr. KELLEY. Clothing must be nearly 50 per cent off?

General McCawley. It is going down, but I would not say that much. We have not bought very much clothing lately.

MILEAGE.

Mr. KELLEY. We will take up mileage.

General Richards. This estimate is \$15,000 less than asked for last year.

Mr. KELLEY. How much did you use last year?

General Richards. We used last year \$98,667. That is very fully watched.

Mr. KELLEY. How much have you used up to date of appropriation?

General Richards. I can very easily give you the figure February 28—it is \$65,441.28.

Mr. KELLEY. You have not used half of the \$150,000?

General Richards. No, sir.

Mr. KELLEY. How much did you use of the 1921 appropriation?

General Richards. \$98,667.28.

Mr. KELLEY. Did you have fewer officers then or less?

General Richards. We had a few more officers then.

General Lejeune. No; about the same. We have had an appropriation of \$150,000 and we cut it down for next year to \$135,000. We have been turning in a surplus.

Mr. KELLEY. Possibly we might make it \$100,000?

General Lejeune. Make it \$125,000 and we will not like to have it too close, because we might have a little margin. That would give us a margin at the end of the year. It is a very small appropriation, watch it very carefully, Mr. Kelley.

Mr. KELLEY. What mileage do you get, the Army or Navy?

General Lejeune. The Navy rate.

Mr. KELLEY. That is 8 cents?

General Lejeune. Yes, sir; except with this difference, officers traveling with troops do not get mileage. In the Navy officers do.

COMMUTATION OF QUARTERS.

Mr. KELLEY. The next item is, "Commutation of

General Richards. We are asking for \$41,100 appropriation for the current year. That has been fully. This estimate now includes all the commutation

serving with or without troops, and includes also the comfort for the enlisted men as well, and for dependents of officers enlisted men. We have worked very carefully in connection with the building program of General McCawley. I do not think the building program can be safely reduced.

WILEY. How much have you spent this year?

RICHARDS. What was spent last year is set forth in paragraph 1 of my report. We have spent this year to February 28 approximately \$410,000.

WILEY. Please tell me how much you have spent this year?

RICHARDS. This figure, \$410,000 to February 28, is an estimate. I do not think, though, it will exceed \$450,000; it is at best a guess, for the reports are not yet in. It would be safe to say \$400,000.

WILEY. Please put in the record of the appropriation for the year how much you have spent for commutation of quarters to February 28.

RICHARDS. This entry at present will be \$450,000. I may for the rest of the year we will probably need \$225,000—estimated \$675,000, out of the \$711,100 appropriated.

WILEY. How much did you spend in 1921 for commutation of quarters?

RICHARDS. At that time this particular appropriation was only for officers serving without troops and the expenditure was \$24,80; this figure alone is of no value for the present purpose.

WILEY. You can put them together?

RICHARDS. Yes, sir. We spent from the paymaster's appropriation \$114,024.80 and General McCawley will be able to supplement for officers serving with troops and for the enlisted men the figure heretofore reported when the estimates were being made—\$461,180.32.

WILEY. You can put them together?

RICHARDS. Yes, sir.

WILEY. Please put that in the record.

RICHARDS. Yes, sir.

WILEY. As I recollect, this was carried in two paragraphs, is it not?

RICHARDS. Yes, sir; up to 1922.

WILEY. And we combined them last year?

RICHARDS. Yes, sir.

McCawley. For 1921 the figures show \$467,302 expended from paymasters' funds under this appropriation.

WILEY. That makes \$581,326 and you are asking for \$670,000?

RICHARDS. Yes, sir.

WILEY. You probably will not need any more next year than

McCawley. Commutation of quarters is purely guesswork. It is entirely upon the number of officers put in that status by the major general commandant. Officers who are assigned to quarters with troops where there are no quarters get commutation of quarters fully.

General RICHARDS. If an officer goes to sea his dependents get commutation, and, moreover, officers and men above the grade of sergeant that may be married get the allowance on field and sea duty.

Mr. KELLEY. If you did not use but \$581,326 in 1921 you would need as much as \$670,000?

General LEJEUNE. I think that is a very close estimate. We have so many sets of quarters in the Marine Corps. The only real basis for a guess is as to the number of officers aboard ship or in the field who have dependents. If an officer gets married he receives commutation of quarters while at sea or in the field.

Mr. KELLEY. Please put in the record the amount you spent up to the 1st of March?

General RICHARDS. Yes, sir.

NOTE.—Approximately \$450,000, or at the most \$675,000 for this year 1923.

PAY OF CIVIL FORCE.

Mr. KELLEY. The next item is, "Pay of civil force"?

General RICHARDS. For "Pay of civil force" we are asking for the year \$146,611.28.

Mr. KELLEY. We will take that up by paragraphs. The first is the office of the major general commandant?

General LEJEUNE. There is no change in that item.

General RICHARDS. There is no change unless it is in Gen. McCall's department.

Mr. KELLEY. There is no change in the paragraph referring to the office of the paymaster. There is no change in the office of the assistant and inspector. What about these changes in the office of the quartermaster?

General McCawley. We are dropping out the technical engineer and the draftsman and asking for clerks in their places, with an increase in the total sum. It is a rearrangement. We are saving \$100, as a matter of fact.

Mr. KELLEY. Have you the clerks now?

General McCawley. No, sir; we have not the civilian clerks we are asking for, but there are one warrant officer and two sailors men performing their duties, and they could be released at a saving of money.

Mr. KELLEY. You want one more clerk at \$1,800 and two more clerks at \$1,200 each?

General McCawley. Yes, sir; in place of the technical engineer and the draftsman, whom we strike out. That saves \$100.

Mr. KELLEY. Have you the technical engineer and draftsman?

General McCawley. No, sir; we let them go.

Mr. DAVIS. You say there will be a saving of \$100?

General McCawley. Yes, sir. We need the extra money badly.

Mr. KELLEY. How long has it been since you let a technical engineer go?

General McCawley. About two years.

Mr. KELLEY. And the draftsman?

General McCawley. A little over a year.

KELLEY. Of course, this would have the effect of adding one at \$1,800 and two at \$1,200 each?

General McCawley. I have not appointed men in place of this and draftsman because I thought we could do without we have not filled their places.

KELLEY. Have you any enlisted men in the Quartermaster's

General McCawley. Yes, sir.

KELLEY. Can not you get one or two more people like that?

General McCawley. General Lejeune has cut me down in the number of enlisted men to the absolute minimum. He can not spare more men to be detailed as clerks.

KELLEY. We passed a resolution when we first started in this Mr. Secretary, relative to the increasing of pay or places.

Secretary Denby. That knocks out the clerks that we were talking the other day.

KELLEY. The general would not let you have the additional enlisted men?

General McCawley. No, sir.

General Lejeune. It is cheaper to have civilian clerks than to enlist men.

KELLEY. General McCawley has not had these two this year, you say you have not had the clerks, either?

General McCawley. I have not the statutory clerks, but there is an warrant officer and two enlisted men I have referred to, who be released if these civilian clerks were allowed.

KELLEY. You have had somebody doing the work?

General McCawley. Yes, sir; but they are going to take those men away, and if they do I can not possibly get the work done. The work of the office is such it is impossible to release those men without filling their vacancies. If we continue to provide enlisted men it will cost more than the civilian clerks asked for.

KELLEY. In the office of the assistant quartermaster at San Francisco there is no change?

General McCawley. No, sir.

KELLEY. In the office of the assistant quartermaster at Philadelphia there is no change?

General McCawley. No, sir.

TEMPORARY EMPLOYEES.

KELLEY. For temporary employees in offices at marine headquarters and at marine posts there is no change?

General Lejeune. No, sir. I should like to have that word "temporary" stricken out, because those people have been with us for many years.

KELLEY. You are not asking for any more temporary employees?

General Lejeune. No, sir; just to have the word "temporary" stricken out.

KELLEY. Was it not the intention when we put that in that when the war emergency was out of the way you would reduce this again?

General LEJFUNE. I cut it down by relieving about men.

Mr. KELLEY. You took out 150 enlisted men?

General LEJEUNE. Approximately that number.

ENLISTED MEN PERFORMING CLERICAL SERVICES, 1921-22.

Mr. KELLEY. General, how many enlisted men were there in clerical duties in 1921?

General LEJEUNE. I do not know the exact figures.

Mr. KELLEY. Please put the exact number in the record.

General RICHARDS. Yes, sir.

Mr. KELLEY. And the actual number of enlisted men performing similar service now.

General RICHARDS. Yes, sir.

General LEJEUNE. We can give you the exact figures.

Mr. KELLEY. That explains why you want this word "stricken out. How many temporary employees were there at headquarters?

General RICHARDS. I have a table here.

General LEJEUNE. Those employees have all been put on civil service by an Executive order.

Mr. KELLEY. You would have reduced the clerks had you enlisted men in, but you elected to take out the enlisted the clerks in?

General LEJEUNE. Yes, sir.

Mr. KELLEY. You have taken out as many enlisted men as were temporary clerks?

General LEJEUNE. More nearly twice as many.

Mr. KELLEY. This practice you regard as more economical in detailing enlisted men for this work?

General LEJEUNE. Yes, sir; economical in money in men. We get the men with rifles in their hands doing clerical work; we get a more permanent clerical force.

HIGHEST PAY OF ENLISTED MEN.

Mr. KELLEY. What is the highest pay that an enlisted Marine Corps gets?

General LEJEUNE. It depends on the length of service.

Mr. KELLEY. I know, but the highest pay?

General RICHARDS. The highest is \$888. That is a sergeant. There are other things that go with it. For instance, if he is in foreign service he gets 20 per cent more.

Mr. KELLEY. If a man serves over and over, reenlists in the Marine Corps, what is the highest pay he can get?

General RICHARDS. There are so many things to consider.

Secretary DENBY. Do you mean compensation or gratuity?

Mr. KELLEY. I mean everything. I had an idea of it pretty well.

General RICHARDS. The highest paid enlisted man in the Marine Corps is a sergeant major or quartermaster sergeant. His laws his pay is as follows [reading]:

Base pay	_____	per month
Act of May 18, 1920	_____	do
Extra ration, act of May 18, 1920	_____	per diem

dition to the above, he is entitled to:

evity pay.—Ten per cent of base pay for each five years' service, not to 40 per cent.

Is.—Eighty-three cents per month for each good conduct medal or bar; month for each medal of honor or bar; \$2 per month for each distinguished cross or bar; \$2 per month for each distinguished service medal or bar.

gn-shore service or sea pay.—Twenty per cent of base pay, plus per-additions thereto; i. e., longevity pay, good conduct medals, medals of distinguished service crosses or medals.

smanship qualifications.—For qualification as—

rifleman-----	per month--	\$5
ooter-----	do--	3
an-----	do--	2

tailed for duty in a staff office of the corps, he is paid a subsistence of \$75 per month in lieu of quarters, heat, light, and rations in kind. tailed on recruiting duty, he is paid, in addition to regular pay, \$1.75 m for subsistence, \$15 per month for commutation of quarters, and an of \$8.80 per month for commutation of heat and light.

ral LEJEUNE. In a few cases it goes above \$100 per month.

MARINES ASSIGNED TO NAVY DEPARTMENT.

KELLEY. There are 19 men under the Chief of Naval Opera-and some of them get as high as \$1,943 a year. Why do you 9 down there?

ral LEJEUNE. Do you mean marines?

KELLEY. Yes.

ral LEJEUNE. Those men are in the Navy Department as , and they live out in town. They are doing duty as watchmen ards for the Navy Department.

KELLEY. How many men have you in the department?

ral LEJEUNE. Those 19 men constitute the guard at the Navy ment.

KELLEY. Are there any others?

ral LEJEUNE. The others are doing clerical duty.

KELLEY. How many marines have you assigned to the Navy ment?

ral LEJEUNE. Doing clerical duty?

KELLEY. All kinds of duty.

ral LEJEUNE. I can not tell you offhand. Those 19 men you o do guard duty. They take the place of watchmen in the ig.

KELLEY Does not the Superintendent of Buildings and ls furnish watchmen there?

ral LEJEUNE. I would be glad to get those men back.

KELLEY. There are 19 men under the Chief of Naval Opera-and 25 in the naval dispensary.

ral LEJEUNE. They are enlisted men in the Navy.

KELLEY. Why does Admiral Coontz have so many down there?

ral LEJEUNE. They have been there since I have been com-nt.

etary DENBY. That is not a large number at all to be on even if the building were guarded otherwise.

KELLEY. For the Chief of Naval Operations alone?

ral LEJEUNE. They are carried under that department, but re scattered all over the building. They are serving the l Board, the Bureau of Ordnance, and the whole Navy ig.

General McCawley. They are only mustered in Secretary DENBY. It is like the men attached to submarines.

General LEJEUNE. There is a necessity for having to guard the building, and they have not been able to get That is the number left from about 200 men that we the war.

PAY OF MARINE CORPS TO CONSTITUTE ONE FUND.

Mr. KELLEY. General Richards, I call your attention to language on page 150 of the bill which authorizes you to do various items as one fund.

General RICHARDS. Yes, sir; as one fund.

Mr. KELLEY. You do not care to have that any longer, do you?

General RICHARDS. That has always been so, and we advise against any change.

Mr. KELLEY. I think it is subject to a point of order if made it. It would not hurt you if they made it, would it?

General RICHARDS. Not for the retired officers, but it is the retired enlisted men, perhaps. Let me explain. I think in 1898, through inadvertence that clause was that time we had no contingent fund to pay the whose retirement was not anticipated, such as we now the wording of the law was different there; it was just as we the law that covers pay of the retired enlisted men. In we came to expend that appropriation the grants were from what they were when we wrote the estimate and to Officers of different grades had been retired for a quality, a result three old retired officers who had been retired were prevented from drawing any pay whatever from the Government until that clause was restored to the bill, which was resolution. Of course, that is now provided for, officers are concerned, but it is not provided for in the retired enlisted men are concerned, and if it should have retired list for enlisted men should change in any way clause is omitted a great injustice may follow in the of enlisted men retired in the immediate future.

Mr. KELLEY. It is the practice to keep within the amount unless it is at some place where by operation of law you may go a little outside?

General RICHARDS. We keep inside of all items of pay; we keep inside on mileage. There we have a small amount of officers around, and we always keep within the limit; it is not always possible to keep within the amount of quarters.

Mr. KELLEY. I think they took this from the Army.

General RICHARDS. We have it in both cases, i. e., in the Marine Corps, alone—that is, under maintenance, Quartermaster's Department, as well where it has produced great economy.

General LEJEUNE. You saved by putting that in.

Mr. KELLEY. That is the reason we put it in last year, because we cut you at some places harder, perhaps, than at others, but in others we were quite liberal.

etary DENBY. I wish that could be done all the way down the

ral LEJEUNE. These subheads together represent practically
propose, and you could lump the amount in one appropriation
t mentioning any of these subheads. For instance, for pay of
vy you appropriate \$136,000,000 as one sum.

ral RICHARDS. There are some papers here I wish to file and
part of the record of this hearing.

e statements and tables submitted by General Richards in ex-
on of the estimate for pay, Marine Corps, 1923, are as follows:)

ay, civil force, Marine Corps, lump-sum appropriation \$100,000.

employees.	Rate per annum.	Esti- mated, 1923.	Esti- mated, 1922.	Ex- pended, 1921.	Office Major General Com- mandant and adjutant and in- spector.	Office quarter- master.	Office pay- master.
y clerks.....	\$2,000.00	2	2	2	1	1	1
.....	1,800.00	5	5	5	2	3	.....
aph operators.....	1,800.00	1	1	1	.....	.....	1
iers.....	1,600.00	3	3	3	2	1	.....
.....	1,500.00	8	8	7	3	1	4
.....	1,400.00	7	7	7	3	4	.....
.....	1,400.00	6	6	6	.....	2	4
enographers, and	1,300.00	13	13	13	5	8	.....
typists.....	1,200.00	13	13	12	5	3	5
.....	1,100.00	9	9	8	5	4	.....
.....	14.00-5.52	5	5	5	.....	5	.....
1.....	.....	72	72	69	26	32	14
.....	.....	\$100,000	\$100,000	\$95,000	.....	.....	.....

¹ Per diem.

² Approximately.

ates, "Pay of the Marine Corps," 1923, including and excluding bonus.

	20,000 men.		19,500 men.		19,000 men.	
	With bonus.	Excluding bonus.	With bonus.	Excluding bonus.	With bonus.	Excluding bonus.
and reserve.	\$4,048,462.18	\$3,374,842.18	\$4,048,462.18	\$3,374,842.18	\$4,048,462.18	\$3,374,842.18
1.....	379,047.50	379,047.50	379,047.50	379,047.50	379,047.50	379,047.50
ten:	.....	.....	.....	.....	.....	.....
and reserve.	11,568,968.84	11,063,723.24	11,310,012.45	10,817,397.99	11,051,056.07	10,571,072.74
1.....	227,046.40	227,046.40	227,046.40	227,046.40	227,046.40	227,046.40
clothing.....	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00
.....	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00
tion of quarters	670,000.00	670,000.00	670,000.00	670,000.00	670,000.00	670,000.00
.....	146,611.28	146,611.28	146,611.28	146,611.28	146,611.28	146,611.28
1.....	17,415,136.20	16,236,270.60	17,156,179.81	15,989,945.35	16,897,223.43	15,743,620.10

Estimates, "Pay of the Marine Corps," 1923, including and as Continued.

	18,500 men.		18,000 men.		EJ
	With bonus.	Excluding bonus.	With bonus.	Excluding bonus.	
Officers:					
Acting and reserve	\$4,048,462.18	\$3,374,842.18	\$4,048,462.18	\$3,374,842.18	\$4,048.00
Retired	379,047.50	379,047.50	379,047.50	379,047.50	379,047.50
Enlisted men:					
Acting and reserve	10,792,099.68	10,324,747.49	10,533,143.30	10,078,422.24	10,274,144.11
Retired	227,046.40	227,046.40	227,046.40	227,046.40	227,046.40
Undrawn clothing	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00
Mileage	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00
Commutation of quarters	670,000.00	670,000.00	670,000.00	670,000.00	670,000.00
Civil force	146,611.28	146,611.28	146,611.28	146,611.28	146,611.28
Total	16,638,267.04	15,497,294.83	16,379,310.66	15,250,969.60	16,130,354.27

NOTE.—The reduction in mileage from \$135,000 to \$125,000 has been agreed to by the Major mandant.

Pay, Marine Corps, 1923.

DIFFERENCE BETWEEN AMOUNTS APPROPRIATED FOR 1922 (BY T

Items.	Expended, 1921.	Appropriated, 1922.	Estimated, 1923.	Increase.
Pay, officers, active and reserve list:				
Base pay	\$2,801,441.03	\$2,816,750.00	\$2,586,500.00	
Longevity		501,690.00	579,170.00	
Bonus, act May 18, 1920	618,362.62	723,780.00	673,620.00	
Retainer pay—Officers—Marine Corps Reserve	3,335.08	10,998.01	8,263.18	
Foreign shore service and sea pay	89,026.00	120,636.00	101,068.00	
Aviation	19,809.35	89,874.00	82,391.00	
Mounts and aides de camp, uniform gratuity, lost personal property, miscellaneous	21,862.72	32,550.00	17,450.00	
Total	3,583,816.89	4,386,198.01	4,048,462.18	
Pay, officers, retired list, base and longevity pay	321,031.38	353,761.25	379,047.50	\$23,286.25
Pay enlisted men, active and reserve list:				
Base pay	8,333,192.38		8,254,908.00	
20 per cent increase, act May 18, 1920	600,589.81		505,345.60	
Longevity increase			308,812.00	
Foreign shore service and sea pay	633,223.73		601,334.32	
Aviation	11,032.88		39,230.40	
Pay general court-martial prisoners			69,120.00	
Travel allowance on discharge	272,731.17		454,505.00	
Traveling expenses, civilian clerks			1,000.00	
Interest on deposit	12,390.41		15,000.00	
Cooks and mess men	71,058.89		86,994.00	
Qualification pay	315,863.01		408,128.00	
Honorable discharge gratuity	143,186.22		300,970.00	
Beneficiaries of deceased enlisted men	16,844.14		22,600.00	
Specialists' pay	107,478.56		210,388.00	
Retainer pay	262,397.58		137,308.32	
Miscellaneous	459,253.38		176,968.60	
Total	11,185,189.16	12,090,300.76	11,664,968.84	
Pay enlisted men, retired list	210,155.38	210,822.60	227,046.40	16,223.80
Undrawn clothing	45,008.00	25,000.00	250,000.00	225,000.00
Mileage	98,667.28	150,000.00	135,000.00	
Commutation of quarters	111,024.80	711,100.00	670,000.00	
Pay, civil force, Marine Corps	118,311.12	146,711.28	146,611.28	

¹ General court-martial prisoners are paid by supply officers of the Navy, and no report of is furnished the Marine Corps.

² Represents only commutation of quarters for officers on duty without troops. Appropriated and estimates for 1923 include commutation of quarters for officers on duty with troops as well as on duty without troops.

³ Does not include \$3,662.11 transferred to "Civil service retirement and disability fund May 22, 1920, or \$6,663.77 paid by quartermaster to per diem employees paid by that office.

Pay, Marine Corps, 1923—Continued.

DIFFERENCE BETWEEN AMOUNTS APPROPRIATED FOR 1922—Continued.

Items.	Expended, 1921.	Appropri- ated, 1922.	Estimated, 1923.	Increase.	Decrease.
RECAPITULATION.					
ers, active and reservelist.....	\$3,583,816.89	\$4,386,196.01	\$4,048,462.18		\$337,733.83
ers, retired list.....	321,031.38	353,761.25	379,047.50	\$25,286.25	
sted men, active and reserve.....	11,185,189.16	12,060,300.76	11,568,968.84		491,331.92
isted men, retired list.....	210,155.38	210,822.60	227,046.40	16,223.80	
n clothing.....	45,908.00	25,000.00	250,000.00	225,000.00	
.....	98,667.28	150,000.00	135,000.00		15,000.00
ation of quarters.....	114,024.80	711,100.00	670,000.00		41,100.00
il force, Marine Corps.....	118,311.12	146,711.28	146,611.28		100.00
tal.....	15,677,104.01	18,043,891.90	17,425,136.20	266,510.05	885,265.75

crease, \$618,755.70.

.—For explanation of increases and decreases see letter to major general commandant, E-32121, p. 30, 1921, par. 4.

.—Amount appropriated under "Pay, Marine Corps, 1921," \$15,032,779.48. Under a decision of Controller of the Treasury, dated Apr. 19, 1921, authority was granted to transfer from "Maintenance of the Marine Corps, 1921," to "Pay, Marine Corps, 1921," such funds as were needed to meet any deficiency in "Pay, Marine Corps, 1921."

PROVISIONS, MARINE CORPS.

KELLEY. General McCawley, you have this year an appropriation of \$4,141,450 for provisions for the Marine Corps, and for the fiscal year you are asking a less amount.

General McCawley. The original estimates were \$4,169,200 under the original estimate, and the department reduced them by \$100,000, leaving a balance of \$4,069,200.

COST OF RATION.

KELLEY. What do you figure the ration at?

General McCawley. At 50 cents. These estimates were made up in August, and I have gone over them three times recently for the purpose of revising them. The last revision brought the total to \$1,570, which represents a difference of \$84,630 from the original estimates. Therefore, I think it has been thoroughly figured out. Of course, the ration is something that is allowed by law or prescribed by law, and we have nothing to do but procure it, just as the law provides. It costs so much money, and we must pay for it. It is really a matter of calculation.

KELLEY. You get the Army ration?

General McCawley. No, sir; the Navy ration. The Army ration is prescribed by the President, and he can change it whenever he wishes to. You gentlemen prescribe the Navy ration in its component parts, and we must furnish that. We get it as cheaply as we can, but we must procure it even if we incur a deficiency in doing so. Marine Corps prices for food are as cheap as either the Army or the Navy, and in some cases cheaper.

KELLEY. I thought you had gone back to the Army ration.

General McCawley. No, sir.

Mr. KELLEY. Where did I get the idea that you were issuing Army ration?

General LEJEUNE. Congress put us on the Navy ration in 1911.

Mr. KELLEY. I thought you were using the Army ration.

General LEJEUNE. We had been prior to that.

Mr. KELLEY. When you went with the Army—

General LEJEUNE (interposing). When we serve with the Army we have the Army ration, but when we serve with the Navy, we have the Navy ration.

Mr. KELLEY. If you had the same food, it would not cost you more than it costs the Army?

General McCawley. No, sir; not if we had the Army ration.

Mr. KELLEY. The Army ration is 32 cents now.

General McCawley. I do not know what the actual cost of Army ration is, but I saw a statement in the paper the other day that the committee reporting the Army bill had allowed for Army ration 30 cents. Our ration to-day is costing 54 cents, or is the average cost, and the Navy ration is costing a little more than that, or about 55 cents.

Mr. KELLEY. I do not see why that should be.

General McCawley. Our ration for troops in the United States is now costing us 47.38 cents on an average, though at Quantico it cost is 43.23 cents, but the average should be considered to carry the higher-priced places. Outside the United States the average cost is 60.83 cents.

Mr. KELLEY. I can see how it might be 40 cents, because there has always been a difference of about 25 per cent, the Navy ration is about 25 per cent above the Army ration in cost.

General McCawley. That is, if the Army is getting its ration at 32 cents, but do you know that?

Mr. KELLEY. That is what they say. Of course, food prices come down.

General McCawley. The last prices we got showed that food was going up.

Mr. KELLEY. I think there has been a little advance in food prices.

General McCawley. The last prices we had showed an increase of 6 per cent on a few of the principal component parts of the ration. For instance, bacon, that being one of the principal components of the ration, in February cost 17.55 cents per pound, and in March cost 19.31 cents per pound; this was just a few days ago. Beef cost 12.15 cents per pound in February, and it was 12.75 cents per pound in March. Butter was 35.44 cents per pound in February, and now 37.15 cents per pound. Lard was 10.73 cents per pound in February, and it is 12.46 cents per pound now. Onions cost 8.87 cents per pound in February, and they cost 8.87 cents per pound now.

Mr. KELLEY. Were you brought up on a farm?

General McCawley. No, sir; but I have spent some time on farms.

Mr. KELLEY. During the spring months of March and April along about that time, everything is high, because they are getting out of the old stuff and are just beginning to get started with the

In the latter part of the season they run out, but that will not situation when you buy your food supplies next summer, ng canned goods.

ral McCawley. We always buy the pack in canned goods.

KELLEY. Butter and eggs are high during March, April, and The Secretary of the Navy knows how farming goes, and he that it is quite natural for the prices to run up somewhat ut when you lay in your stock of supplies next summer the will have dropped away down. I wonder if it would not be it to figure the ration at 40 cents?

etary DENBY. If you are figuring on the marines stationed at manent posts in the United States, the cost of the ration would thing, but when you send them abroad, the whole thing

ral McCawley. At some places the ration costs over 60 cents.

KELLEY. You kept it down to 50 cents last year.

ral McCawley. Do you know how that was accomplished? accomplished by dipping heavily into our reserves.

KELLEY. You might do that again to keep it from spoiling on and.

ral McCawley. We have practically wiped it out.

KELLEY. Have you any left?

ral McCawley. We will have about \$400,000 worth left on at best, which is about the normal amount we should always and it should not be called a reserve, as it is nothing but a ry stock to carry us over and enable depots to fill requisitions.

KELLEY. You do not need much reserve in a big country like here you can be supplied readily.

ral McCawley. It would be very uneconomical to buy canned immediately as you consume it, as you should buy that when the s made up, and there is a large quantity of canned goods ed.

KELLEY. How will we explain this great difference in the ? Here is the Army with troops on the Rhine, on the Isthmus ama, in the Philippines, and scattered all along the border nd all over the United States with a ration allowance of 32

etary DENBY. They do not have to furnish certain things that st furnish.

KELLEY. But we have allowed you 25 per cent increase over my ration to make up for that.

ral McCawley. It will not make up for that on the basis of s.

—I do not know whether you know, Mr. Chairman, that the Army ration s f. o. b. point of purchase with no freight added, while our supplies based f. o. b. destination freight being included in the cost price.

KELLEY. That is the history of this whole transaction. If you dy it, you will find that all along there has been a difference t 25 per cent between the Army ration and the Navy ration. as due to the fact that your ration prescribed so many ounces and so many ounces of that.

etary DENBY. And it was also because of the mobile character Navy.

Mr. KELLEY. And because of the mobile character of the Navy: Now, if we followed that practice, we would give you the 3 ration plus 25 per cent.

Secretary DENBY. That is accounted for theoretically by the facilities of transportation and the mobile character of the naval service as contrasted with the Army service, but that still leaves the matter without your having made any differential in favor of the 2 on account of the fact that the ration is prescribed.

Mr. KELLEY. If you take the Army ration for 1912 and the 1 ration for 1912, and put them down side by side, and then carry right down through 1913, you will find that the difference has about 25 per cent each year right along. Once in a while the difference has been 33½ per cent, but it has seldom been more than 25 per cent. Some years it has been less than 25 per cent, and sometimes only 20 per cent. It is surprising how closely together they run amount sometimes. The Navy ration often ran down to 30 cents.

General McCawley. That was before the war.

Mr. KELLEY. Food prices are going back to where they were before the war.

General LEJEUNE. Before you establish a price for the ration, should put something in the law that would enable us to change components.

Mr. KELLEY. We are willing to give you that difference, of course. We are willing to feed the boys with the Navy ration, and we are willing to give you enough money to buy that ration, but last year the 1 insisted that it would take about 68 cents.

General McCawley. I think that is what we were paying at that time, and I said that we could come down to 60 cents, or that is my recollection. I predicted that the ration would cost 60 cents, but we have managed to reduce the average to 54½ cents.

Secretary DENBY. What did you do?

Mr. KELLEY. We put it at 50 cents.

General McCawley. You put it at 50 cents and gave us money for 47 cents.

Mr. KELLEY. You got along very well by using a little of the reserves.

General McCawley. We used \$800,000 of our \$1,200,000 war reserves. If we go on doing that, we will not have any reserve next year; in fact, by July 1 there will be no reserve.

Mr. KELLEY. The difficulty is this, that the Army bill provides 32 cents for the ration.

General McCawley. I have no doubt but that the Army has reserves that they are still working on. That is probably the reason why that cost is 32 cents.

Mr. KELLEY. That should be inquired into.

General McCawley. Our reserve is wiped out.

Mr. KELLEY. You have how much food reserve?

General McCawley. On the 1st of July we will have about \$400,000 worth of food supplies, which is just the amount we should have to carry us along for two or three months.

Mr. KELLEY. I quite agree with General Lejeune in his remark that, before you establish a price for the ration which is considerably lower than the price now being paid you should put some

the law that would enable the components of this ration to be fed by administrative action, as, if the law remains as at present, men are entitled each day to the components authorized by law, the Government is required to furnish those components, and if money appropriated is not sufficient a deficiency will ensue. If some authority is given for administrative action in reducing amount of food issued daily—which, of course, would result in saving of money—then the law could be complied with, and the Government given the food that the money appropriated will buy, and no deficiency is likely to result.

I have no question whatever of being able to feed the Marine on a 40-cent ration, but I am equally sure that it is not possible to provide a 40-cent ration which will be fully equal to the ration prescribed by law, though such ration would be fully satisfying to the men. I am as thoroughly convinced that, unless prices are materially reduced, it will be impossible to procure Navy ration in full for that amount of money; and if you insist no deficiency shall occur in this appropriation, although the existing Statutes provide that such a deficiency may be made in the future, then I would suggest the authorization for the reduction of the ration by administrative action as I have before recommended to.

RESERVE SUPPLIES ON HAND.

Mr. KELLEY. Will you put in the record a statement of your reserve as of this date, or as of the last available date, and then state of how much you will have on hand on the 1st of July?

Mr. McCRAWLEY. I will do so. (The statement follows:)

Value of depot subsistence stores at the depots in Philadelphia, Pa., Hampton Roads, Va., and San Francisco, Calif., and at the Marine Barracks, Quantico, Va., Parris Island, S. C., and Mare Island, Calif., as follows:

and July 1, 1921-----	\$1,137,370.62
and March 1, 1922-----	610,203.53
Estimated value of supplies to be purchased March 1-June 30,	
-----	400,000.00
Estimated value of supplies to be carried over July 1, 1922-----	393,947.00

Secretary DENBY. Do you intend to use that reserve after getting appropriation?

Mr. McCRAWLEY. We are still eating into our reserve, so that July 1 we will have less than \$400,000 left, which is no reserve left.

Secretary DENBY. When you made up your figures for next

Mr. McCRAWLEY (interposing). I estimate that we will need next year \$4,084,570, but I am willing to accept this figure in the event in order not to ask for more money, and the figures are practically the same. I am sorry that any increase should appear to be necessary in the first item in our appropriation, because I am going to make reductions in nearly every other item as you go through.

Mr. KELLEY. This is based upon a cost of 54 cents?

Mr. McCRAWLEY. No, sir; it is based upon a 50-cent ration, although the average cost of the ration to-day is 54.7 cents.

Mr. KELLEY. Is that computed on the basis of 20,000 men?

General McCawley. Yes, sir. If you reduce the number of of course, we reduce this estimate.

Mr. KELLEY. Did you deduct from the 20,000 men the nu subsisted on board ship?

General McCawley. Yes, sir; we do not feed the men on board and we do not estimate for them.

Mr. KELLEY. You estimate only for the number that you act subsist?

General McCawley. There are 2,000 men on board ships the subsisted by the Navy, and we do not estimate for them.

Mr. KELLEY. You estimate on the basis of 19,000 men?

General McCawley. Yes, sir; I have an analysis of that i bill right in front of you, on page 151, which shows exactly how \$4,069,000 is made up.

Mr. KELLEY. You say here, "rations in kind for 20,000 men.

General McCawley. No, sir; that is not based on 20,000 mei on 16,874 men.

Mr. KELLEY. That is the way it appears in this table here.

General McCawley. This is my analysis which I put in the ings every year. I always analyze the estimates. That is the ment on which this estimate was based. The most recent fi show that 17,164 men are receiving rations in kind. That inc the men serving abroad. It is not a fair way of estimating, be those men serving abroad are being provided with a ration v costs about 60 cents. Next year I will give a better analysis o and put in those men separately in addition to those on sho the United States.

Mr. KELLEY. You will please put this table in the record a point.

General McCawley. I will do so.

Appropriation. "Maintenance Quartermaster's Department, Marine 1923," analysis of subhead "Provisions" (20,000 men).

Original analysis:

16,874 men—

Rations in kind, at 50 cents per day per man-----	\$3.0
Subsistence while traveling, at \$2.25 per day-----	
Board and lodging of applicants, at \$2.25 per day-----	
2,000 men aboard ship, subsisted by Navy-----	---
510 men, commutation enlisted men on recruiting duty, at \$2.25 per day-----	4
400 men, commutation, clerks and messengers, staff officers, at \$1.50 per day-----	2
216 men, commutation, small detachments-----	1
Additional rations for noncommissioned officers (962), at 40 cents per day per man (act approved May 18, 1920)-----	1
Maintenance of ice machines-----	
Ice for preservation of provisions, etc-----	
Subsistence in hospitals-----	

Total-----4, 10

Reduced by direction of Navy Department-----

Total-----4

Later analysis:

17,164 men—

Rations in kind at 50 cents per day per man-----	3, 1
Subsistence while traveling at \$2.25 per day-----	
Board and lodging of applicants at \$2.25 per day-----	

could enable the components of this ration to be administrative action, as, if the law remains as at present, and each day to the components authorized by law, if it is required to furnish those components, and if the appropriation is not sufficient a deficiency will ensue. If authority is given for administrative action in reducing the food issued daily—which, of course, would result in a deficiency—then the law could be complied with, and the food that the money appropriated will buy, and no deficiency to result.

Question whatever of being able to feed the Marine 40-cent ration, but I am equally sure that it is not possible to have a 40-cent ration which will be fully equal to the ration prescribed by law, though such ration would be fully adequate for the men. I am as thoroughly convinced that, unless the ration is materially reduced, it will be impossible to procure food in full for that amount of money; and if you insist on a deficiency shall occur in this appropriation, although the law provides that such a deficiency may be made in the appropriation when I would suggest the authorization for the reduction of the ration by administrative action as I have before re-

RESERVE SUPPLIES ON HAND.

Q. Will you put in the record a statement of your requisition date, or as of the last available date, and then show how much you will have on hand on the 1st of July?

A. CAWLEY. I will do so. (The statement follows:)

At subsistence stores at the depots in Philadelphia, Pa., Hampton and San Francisco, Calif., and at the Marine Barracks, Quantico Island, S. C., and Mare Island, Calif., as follows:

for 1921.....	\$1,137,370.62
for 1922.....	610,203.53
Cost of supplies to be purchased March 1-June 30,	
.....	400,000.00
Cost of supplies to be carried over July 1, 1922.....	393,947.00

Q. DENBY. Do you intend to use that reserve after getting the appropriation?

A. CAWLEY. We are still eating into our reserve, so that we will have less than \$400,000 left, which is no reserve.

Q. DENBY. When you made up your figures for next year?

A. CAWLEY (interposing). I estimate that we will need \$4,084,570, but I am willing to accept this figure in the event that we do not ask for more money, and the figures are practical. I am sorry that any increase should appear to be the first item in our appropriation, because I am going to make reductions in nearly every other item as you go through.

Q. This is based upon a cost of 54 cents?

A. CAWLEY. No, sir; it is based upon a 50-cent ration, and the average cost of the ration to-day is 54.7 cents.

Q. Is that computed on the basis of 20,000 men?

you will give the amount of the reserve you have used to date and then estimate the amount you will use of your reserve for the balance of the year we can tell how much your ration is costing you this year.

General McCawley. Very well.

PURCHASE OF STAPLE PRODUCTS.

Mr. DAVIS. Do you buy your staple products—for instance, flour and meat—in large quantities?

General McCawley. Only what we regard as necessary for consumption at the places where we purchase them.

Mr. DAVIS. Do you buy them very often?

General McCawley. Oh, yes, sir; every month. We buy many of the things every month, particularly the fresh food or perishable stuff.

Mr. DAVIS. I am familiar with the usual periods that many of our farm products are sold, and my experience is that there are certain months in the year when flour, which makes bread, and meat are higher than they really ought to be. Three or four months ago a farmer was selling his wheat and corn crop—I come from a wheat and corn producing country, and much of the wheat crop was sold by the farmer at about 90 cents a bushel, and, owing to condition he was obliged to, and did virtually, sell his entire crop.

Since that crop of wheat was disposed of, as far as the farmer was concerned, at about 90 cents a bushel, wheat has been going up until the other day it reached about \$1.40 or \$1.50. The farmer did not have much of any wheat to sell then; it was in the hands of the elevator men, and now the price of bread has gone up in consequence of raise in price of wheat. I remember that corn was selling at about 25 cents a bushel, and after the farmer had sold it all, and it went into the hands of other people it usually goes up. The same would be true about bacon. In a little while the farmer will be selling his hogs, from which are made bacon and other pork products, and as soon as the farmer disposes of all his hogs the retail price and the wholesale price of meat products will go up, and if you use considerable discretion, which I think you ought to use, you would take advantage of those times when you might buy flour cheaper than you can right now, because bread is now being made out of flour produced from \$1.40 wheat which the farmer sold for 90 cents. And you could buy bacon in four or five months from now at a good deal less as soon as the farmer gets rid of his wheat, corn, cattle, and hogs and goes to the products therefrom.

Mr. KELLEY. I think the general buys his staples like that just as you say.

General McCawley. We always take advantage of the market.

Mr. DAVIS. But you ought not to buy them every month.

General McCawley. We do not buy everything every month.

Mr. DAVIS. If you would buy your flour two or three months from now you would get it for less than you can get it now, and flour will keep for five or six months, and bacon will keep for five or six months so, I think, you should take advantage of those conditions.

General McCawley. We only buy the perishable articles of our ration, the green stuff, every month.

Mr. DAVIS. I wanted to find out whether you took advantage of those conditions.

eral McCawley. Always. This is about the method we purchase perishable articles of the ration, such as fresh and smoked fish, fresh vegetables, and fresh fruits, are purchased locally by contract after solicitation of bids and award by items at the lowest satisfactory bidders. Canned fruits, canned vegetables, and canned beans, and other seasonable articles are purchased at depots in the season of greatest seasonable abundance, the quantity purchased estimated to be sufficient to last until the next season.

Such articles as canned meats, flour, sugar, baking powder, eggs, and similar articles are purchased for stock at depots from time to time, as required, and as market conditions render advisable, quantity procured usually covering six months' requirements, the minimum quantity of stock on hand being approximately three months' requirements.

Mr. Davis. In my opinion flour will cost you \$2 or \$3 a barrel now than it will when the August and September crop of wheat comes in; then wheat will go down and flour will also go down.

Mr. Kelley. Last year you put in your tables a statement showing the length of time the various reserves would last a corps of the Marine Corps if we were then planning. Will you carry that out this year, Mr. McCawley?

Mr. McCawley. I have it here.

Mr. Kelley. On the basis of 17,500 men, 18,000 men, and 19,500 men?

Mr. McCawley. Yes, sir.

Mr. Kelley. Wherever you put in a table about supplies, carry it out to show how long those supplies will last a corps of those different regiments.

Mr. McCawley. Very well.

of the principal articles of Marine Corps subsistence stores on hand and ordered as of December 31, 1921.

Article.	On hand and on order Dec. 31, 1921.	Estimated to last—	On hand Dec. 31, 1921.	Estimated to last—	Average 1,000 men.
	Pounds.	Mo. Dys.	Pounds.	Mo. Dys.	Pounds.
Evaporated.....	13,111	1 ..	13,111	1 ..	630
Navy.....	295,811	4 12	205,811	3 3	3,180
Canned.....	84,288	3 21	55,488	2 13	1,075
.....	91,263	2 11	91,263	2 11	1,890
Meal, white.....	13,620	.. 23	13,620	.. 23	830
Meal, yellow.....	10,230	.. 24	10,230	.. 24	600
Limon.....	53,366	1 23	53,366	1 23	1,400
Flour.....	2,656,047	7 14	1,216,047	3 12	16,576
Sackberry.....	42,338	1 5	42,338	1 5	1,700
Evaporated.....	499,123	6 4	499,123	6 4	3,870
Evaporated.....	7,551	.. 15	7,551	.. 15	685
Evaporated.....	11,839	.. 22	11,839	.. 22	740
.....	71,788	2 4	71,788	2 4	1,575
.....	14,878	3 25	14,878	3 25	1,600
.....	750,800	3 17	750,800	3 17	10,000
Beans.....	344,039	4 22	344,039	4 22	3,460

ons.

above represents the stock on hand at Marine Corps depots in the United States and Marine Corps at Parris Island and Quantico. Reports from other posts have been discontinued on account of the receipt, which makes the information contained therein of little value. The above figures are on the basis of 20,000 men. On July 1 there will be no reserve left.

Mr. Kelley. Will you please indicate the value of the reserves during this fiscal year?

Mr. KELLEY. That will be fine; if it is not too big a job?
General McCawley. No; we can easily do that.

Articles of Marine Corps clothing and material to be purchased during year 1923.

	On hand.	Material.			Total on hand and quantity material on hand and due on contract.	Material required 1923.		m b i m l a s D qu on qu m on an on tra rec
		On hand.	Due on contract.	Will make—		Quantity.	Will make—	
Belts, trouser.....	54,152				61,679			
Webbing.....		12,488	0	7,527		40,000	33,284	
Buckles, friction.....	0	0	0		0	30,000	30,000	
Tips, end.....	3,784	3,784	0	3,784	3,784	30,000	30,000	
Lace, yellow silk.....		2,000	8,000			50,000		
Chevrons and stripes.....	5,624			2,856	8,480		14,285	
Nainsook.....		93,371	77,501	109,846	431,018	200,000	128,671	
Drawers, knee.....	321,172							
Kersey, green, 16 ounces.....		172,044	59,964			60,000		
Coats, S. W.....	80,716			61,982	142,698		16,020	
Trousers, S. W.....	120,379			72,313	192,692		18,690	
Flannel shirting.....		235,205	1,261			60,000		
Shirts, flannel.....	112,499			118,233	230,732		30,000	
Boots, rubber.....	16,770		0		16,770	2,000		
Coats, rubber.....	14,964		0		14,964	3,000		
Caps, dress.....	21,924		10,830		32,754	8,000		
Gauntlets, horsehide.....	56		0		56	1,000		
Hats, field.....	114,227		0		114,227	40,000		
Ornaments, gilt, collar.....	238		0					
Ornaments, gilt.....	34,416		17,284		17,522	15,000		
Shoes, russet.....	113,561		0		34,416	10,000		
Shirts, under cotton.....	461,716		50,000		183,561	75,000		
Socks, woolen.....	418,062		100,000		561,716	100,000		
			0		418,062	60,000		

NOTE.—Consideration must be given to the large number of sizes required to be kept on hand to fit the men, which necessitates a large stock.

Mr. KELLEY. You are evidently going to have quite a lot of m left out of this appropriation this year, are you not?

General McCawley. I can not tell, Mr. Chairman. At the pre time we have a balance in that appropriation of about \$400,000, about four months to run.

Mr. KELLEY. We gave you \$1,125,000?

General McCawley. Yes, sir. We will probably have to buy things soon; in fact, I know we will.

Mr. KELLEY. In this table on page 152 I notice the employe about the same in the different years?

General McCawley. Yes.

SALARIES AND WAGES.

Mr. KELLEY. Then why should the total wages paid be so differ
General McCawley. We are going to cut some of them off.

KELLEY. This is the material out of which these articles are

eral McCawley. Well, no; it is uniform clothing material, including made-up articles, but it includes everything which we require.

KELLEY. This is what you have on hand?

eral McCawley. Yes; that was a survey as of the 31st of December.

KELLEY. Which one of these items are the shirts you have been going about?

eral McCawley. Cotton undershirts, about two-thirds of the total, 421,000.

KELLEY. Four hundred and twenty-one thousand seven hundred and sixteen shirts.

eral McCawley. Yes, sir.

KELLEY. Enough to last 15 months?

eral McCawley. Yes.

KELLEY. On a corps strength of how many?

eral McCawley. Twenty thousand men. However, it is rather hard to say that the time limit sufficient to meet the requirements is 15 months, because that simply refers to the total number on hand; we do not consider the sizes at all.

KELLEY. There might be some sizes you would have to fill in?

eral McCawley. Exactly. Recently we had to buy some of the 2 and 3 sizes of undershirts just referred to.

KELLEY. I remember that one year the sizes were all too large and the next year all too small.

eral McCawley. During the war we enlisted a great many large and we were left with a good many large sizes after the war. This year, Mr. Kelley, just on that one item of shirts, we issued 1,000,000 from the Philadelphia depot in 12 months. In maintaining our stock there should be on hand about three times the issues from the depot for the preceding year, as you must give consideration to the needs for the balance of the year in which the estimate is made, the fiscal year and six months in the year following that to balance our stock and take care of your sizes.

KELLEY. I would not think you would have to do that; I should think you would have some reserve?

eral McCawley. The reserve I am talking about now must be added between now and the 1st of July, before the money you are going to appropriate becomes available, and that money takes care of the needs of next year and should take care of about six months in the year following before the new appropriation becomes available and then we get our stock in. That has been our experience, and it shows we must require about that much to keep our stock going.

KELLEY. This is the material you have made up?

eral McCawley. Yes, sir.

KELLEY. How do you set out the material that is not made up, and how can we add it to this?

eral McCawley. I have a list of that, too.

KELLEY. Is that in such shape that you can put it in the table in the form of a table?

eral McCawley. Yes, sir. I can put in the material on hand and show how many articles it will make.

Mr. KELLEY. That will be fine; if it is not too big a job!
General McCawley. No; we can easily do that.

*Articles of Marine Corps clothing and material to be purchased
year 1923.*

	On hand.	Material.			Total on hand and quantity material on hand and due on contract.	Material record 1923.	
		On hand.	Due on contract.	Will make—		Quantity.	Will make—
Belts, trouser.....	54,152				61,679		
Webbing.....		12,488	0	7,527		40,000	33,24
Buckles, friction.....	0	0	0	0	0	30,000	30,00
Tips, end.....	3,784	3,784	0	3,784	3,784	30,000	30,00
Lace, yellow silk.....		2,000	8,000			50,000	
Chevyrons and stripes.....	5,624			2,856	8,480		14,25
Nainsook.....		93,371	77,501	109,846		200,000	
Drawers, knee.....	321,172				431,018		128,57
Kersey, green, 16 ounces.....		172,044	59,964			60,000	
Coats, S. W.....	80,716			61,982	142,698		16,65
Trousers, S. W.....	120,379			72,313	192,692		18,69
Flannel shirting.....		235,205	1,201			60,000	
Shirts, flannel.....	112,429			118,233	230,752		30,69
Boots, rubber.....	16,770				16,770	2,000	
Coats, rubber.....	14,964				14,964	3,000	
Caps, dress.....	21,924		10,849		32,773	8,000	
Gauntlets, horsehide.....	56		0		56	1,000	
Hats, felt.....	114,227		0		114,227	40,000	
Ornaments, gilt, col- lar.....	238		17,284		17,522	15,000	
Ornaments, gilt.....	34,416		0		34,416	10,000	
Shoes, moccasin.....	113,561		50,000		163,561	75,000	
Shirts, under cotton.....	96,716		100,000		196,716	100,000	
Socks, wooden.....	418,062		0		418,062	60,000	

NOTE.—Consideration must be given to the large number of sizes required to be kept on hand to fit the men, which necessitates a large stock.

Mr. KELLEY. You are evidently going to have quite a lot of left out of this appropriation this year, are you not?

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Mr. KELLEY. In this table on page 152 I notice the em about the same in the different years?

General McCawley. Yes.

SALARIES AND WAGES.

Mr. KELLEY. Then why should the total wages paid

General McCawley. We are going to cut some of

Mr. KELLEY. Let me see whether I have this straight in my mind. The table shows the number of people manufacturing these different articles?

General McCawley. Yes, sir.

Mr. KELLEY. And the schedule below shows the overhead salaries and the wages paid the employees?

General McCawley. Yes, sir.

Mr. KELLEY. The wages paid to practically the same number of employees range from \$384,000 in 1921 to \$475,000 in 1922 and \$500,000 in 1923?

General McCawley. That was probably due to an increase in salaries.

Mr. KELLEY. That is what I am getting at. When was there any increase in wages?

General McCawley. I had nothing to do with that. That was authorized by the Navy Department and it was automatic with us; we had to follow the Navy Department's scale of wages.

General Lejeune. In August, 1920, there was an increase in salaries.

Mr. KELLEY. But in 1923 is your big increase, \$553,000?

General McCawley. That is the present estimate.

Mr. KELLEY. But it is for the same number of men?

Secretary Denby. The wages in the yards were decreased on September 15.

Mr. KELLEY. It is the same number of men all the way through, yet the amount is increased by about \$75,000. Was there any increase in wages recently?

Secretary Denby. I do not recall it.

General Lejeune. There was some increase made.

Mr. KELLEY. Nobody has been increasing wages this year over last.

General McCawley. Everybody in the Philadelphia depot is on the scale of wages authorized by the Navy Department.

Secretary Denby. I will find out about that and see what the explanation is. I am very much surprised myself to know that there have been any increases in wages authorized this year.

Mr. KELLEY. I do not think there could have been.

General McCawley. Those men could not get any more money than is authorized by the Navy Department's scale.

Mr. KELLEY. These figures may be wrong.

General McCawley. General Radford sent these figures and I quoted them from him.

Mr. KELLEY. That \$75,000 might have been an error in mathematics.

General McCawley. Possibly.

Secretary Denby. I can not see anything else. It is the same number of men and the same number of days, but the question may come up that there may have been more hours of work.

General McCawley. But you can be sure that none of those men are any more than is authorized by the Navy Department's scale of salaries.

Mr. KELLEY. The Secretary makes a suggestion which may let us know that the number of days worked may have been much less. They

General McCawley. For instance, in the first six year we spent about \$62,000 for gasoline and \$21,672.00 and fuel oil.

Mr. KELLEY. You are not paying 23 cents a gallon are you?

General McCawley. No, sir; except at one station.

Mr. KELLEY. How much a gallon do you estimate for?

General McCawley. At Parris Island 16 cents and cents. Those are the big stations. At Portsmouth, N. H. gasoline for only one Ford car and probably have to buy it and the price of 23 cents at that place is cheap, as gasol is very expensive. It does not pay us to send up to Portsmouth our supply stations for that little car. We have saved on gasoline in the last year. We have saved about \$75,000.

Mr. KELLEY. That is because the price has gone down?

General McCawley. Yes, sir; and also on account of a in its use.

Mr. KELLEY. It was 33 cents a gallon.

General McCawley. In the West Indies alone they worth of gasoline in 1921. The gasoline cost us over \$200 year. That has been cut tremendously.

Mr. KELLEY. But that is due to the fall in price?

General McCawley. Yes, sir; and the smaller consumpt

Mr. KELLEY. How many gallons of gasoline are you for?

General McCawley. I estimate that we will use the of this year 418,000 gallons. Last year we used 958,343

Mr. KELLEY. How much kerosene do you estimate for, price?

General McCawley. I have not the consumption of kerosene.

Mr. KELLEY. It is not very large?

General McCawley. No, sir.

Mr. KELLEY. The bulk of that item is gasoline?

General McCawley. Yes, sir.

Mr. KELLEY. How much coal are you asking for?

General McCawley. Anthracite coal, 12,816 tons, coal, 32,457 tons.

Mr. KELLEY. And the price?

General McCawley. The price has gone up a little. ash egg coal we are paying for 1922 \$7.55 a ton, an inc cents.

Mr. KELLEY. Delivered where?

General McCawley. That is the mine price : 1 all points on the eastern coast north of Norfolk, v —1 anthracite coal. For chestnut coal we pay \$7.85, wi of 10 cents; stove coal has increased 15 cents, up to of bituminous coal has come down. Last year it was it is now from \$2.25 to \$3.50; more being pure 1 figure. These are all mine prices.

Mr. KELLEY. How many tons of coal do you ask for?

General McCawley. About 32,500 of bituminous and anthracite.

Mr. BYRNES. Your estimate is based on the increased price!

neral McCawley. No, sir. We never had enough money for to carry us through. The price of gasoline has decreased about 10 per cent and the price of fuel oil about 40 per cent, and I have considered those facts in making this estimate.

Mr. KELLEY. Probably, if we give you the same amount you had last year, you can get along pretty well, with the decrease?

neral McCawley. I am sure we can not, though there is one thing, if this new pay bill for the services passes, \$250,000 can come out of the commutation item in this appropriation.

Mr. KELLEY. And not go in anywhere else?

neral McCawley. The paymaster will have to take care of some-

Mr. KELLEY. We will not figure on that, because we do not know whether it will pass.

neral McCawley. We are estimating this year that it will cost \$72,000 for fuel. It is just one of these appropriations where, if we do not get enough money, we are bound to create a deficiency. Buildings must be heated and the commutation allowances must be paid and we must have fires for cooking and gasoline, etc., to run stoves, as well as electricity for lighting.

MILITARY STORES, MARINE CORPS.

Mr. KELLEY. The next item is, "Military stores, Marine Corps." We have \$500,000 this year and you want the same amount next year?

neral McCawley. I am suggesting a decrease in that appropriation of \$50,000.

Mr. KELLEY. Making it \$450,000?

neral McCawley. Yes, sir.

Mr. KELLEY. This money is to be used to manufacture various articles for the Marine Corps?

neral McCawley. Yes, sir; and from time to time for the purchase of articles that we can not manufacture.

Mr. KELLEY. You are getting along pretty well with the amount last year?

neral McCawley. Yes, sir. We will probably have a slight balance, but it will have to go to make up the deficiency in fuel.

Mr. KELLEY. You have estimated that you will not use but \$350,000 this year; but running your stock down you will have to have over \$100,000?

neral McCawley. The estimate was put in last August. I do not know now whether it will come out right or not.

Mr. KELLEY. How is it running since then, are you going to use more than \$350,000? This is one of the places you use to help out the fuel?

neral McCawley. We will have to use all the balance to help pay for the fuel, because we need over \$280,000 for fuel.

Mr. KELLEY. If we take care of the fuel, \$350,000 will be enough. I think you have rather convinced me, personally at least, that it is a little deep on the fuel.

neral McCawley. There is no question about that.

Mr. KELLEY. If we make a little more for fuel, we can be at \$50,000.

General McCawley. But we are using up our surplus and the transportation here does not represent the normal as we have had more than 120,000 men, and five or six times.

Mr. KELLEY. Suppose you and I agree you will have a 10 per cent. increase and we will have more money in the end to spend. Suppose we increase your fuel appropriation from \$40,000 to \$50,000.

General McCawley. I will try to get along though I have got to figure in a little more for fuel.

TRANSPORTATION AND LOGISTICS, MARINE CORPS.

Mr. KELLEY. The next item is - Transportation and marine Corps.

General LEVINE. Next year we will have to enlist over 12,000, and I have an estimate from \$1,000,000 to \$850,000. That is one we have been able to make so many economies in the way of money.

Mr. KELLEY. If we should make a little more cut than you have made, then we will cut this item accordingly!

General LEVINE. I do not think it would be safe, unless you are a tremendous cut.

Mr. KELLEY. We will not make a tremendous cut.

General McCawley. I suggest reducing that \$100,000.

General LEVINE. Say \$80,000 for \$100,000; that is what I am getting.

Mr. KELLEY. Please put in the record a statement as to what you have in 1929, 1930, 1931, and 1932.

General McCawley. Yes, sir. [Statement on p. 671.]

Mr. KELLEY. You will do that for all the various appropriations all the way through?

General McCawley. Yes, sir.

REPAIR OF BARRACKS, MARINE CORPS.

Mr. KELLEY. The next item is - Repairs of barracks, Marine Corps.

General McCawley. I agree to a reduction there of \$100,000. According to our last report we had 1,348 temporary buildings, 1,483 permanent buildings, or a total of 2,831 buildings to be maintained and repaired. Those buildings represent a value of \$5,331,000 for the temporary buildings and \$4,432,000 for the permanent buildings, or a total value of \$9,763,000. They have to be kept in repair. I will give you some idea as to how we use the appropriation. We have given up a great many rented buildings and are giving them up as fast as we can. The Philadelphia depot is moving into buildings turned over to us by the Army, where we will save the rent about 1st of July, except the ground rent, which we have to pay, that will be about \$23,000. I think we can give up \$100,000 there.

Mr. KELLEY. Is the rent you expect to pay \$27,000?

General McCawley. It will be less than \$27,000; only a little over 300.

General Lejeune. We took that over from the Army. They were paying ground rent.

General McCawley. The exact amount is \$23,658.

Mr. Kelley. For rent and storage you estimate \$98,793 for this year. What is the amount for next year?

General McCawley. \$72,721. Speaking of rent, General Lejeune entered into an arrangement with General Dawes to give up all old buildings so far as practicable and to move into Government buildings for the recruiting service.

Mr. Kelley. Have you built anything under this temporary building clause?

General McCawley. Very little, sir.

Mr. Kelley. How much?

General McCawley. \$1,300.

Mr. Kelley. How much have you spent for repairs so far this year?

General McCawley. A little less than \$280,000, but we have got to make a good many repairs and do a lot of painting this spring, which will pretty nearly use up that appropriation.

Mr. Kelley. You have spent about \$280,000 so far this year?

General McCawley. Yes, sir; but that is not representative of this year of the year, because we do a lot of our work in the spring.

FORAGE, MARINE CORPS.

Mr. Kelley. The next item is forage for the animals.

General McCawley. I can not suggest any change in that appropriation. We have barely enough.

Mr. Kelley. Have you about the same number of animals as last year?

General McCawley. Yes, sir. We will have a few less this year. They expect a deficiency in that appropriation. It is in the same position as fuel, but we are trying to get along. The animals have been fed. Fortunately this year the price of all horse food has been very low, but I do not think it will be next year. It is abnormally low, and it must go higher. While we reduced the number of animals, I do not think the appropriation could safely be cut.

Mr. Kelley. How many animals have you?

General McCawley. Eight hundred and seventeen.

Mr. Kelley. That is about the same number you had last year?

General McCawley. Yes, sir.

Mr. Kelley. You think food will not be lower?

General McCawley. The reports I have from our buyers show that the price is going to be higher next year.

Mr. Kelley. Have you quite a stock?

General McCawley. No, sir; we do not keep any stock on hand.

CONTINGENT, MARINE CORPS.

Mr. Kelley. The next item is, "Contingent, Marine Corps"?

General McCawley. I offer to give you back out of the estimate \$285,000, over half a million dollars, making the appropriation an \$2,000,000.

Mr. KELLEY. The same as last year?

General McCawley. Yes, sir.

Mr. KELLEY. This is a long list of supplies, stationery, and everything like that?

General McCawley. Everything.

Mr. KELLEY. Of course, this stuff is all cheaper than it was year?

General McCawley. But this is an appropriation in which have no reserve at all. It is day to day, the maintenance appropriation. A glance at its wording will show the multitude of things charged to it.

Mr. BYRNES. How does your account stand of recent date? you think you will get through this fiscal year on the appropriation that you have?

General McCawley. I hope so; but I do not know. We are going to try to, but there will be no balance left. I can assure you of this, you will not have a deficiency in the quartermaster's appropriations.

On page 159, in line 4, the three words "during the war" at the end of the line, I think should come out. They seem to be superfluous.

Mr. KELLEY. You want to pay the funeral expenses of rear officers on active duty?

General McCawley. Yes, sir.

General LEJEUNE. We have three on active duty now.

Mr. KELLEY. The \$2,000,000 suggested is on the basis of 2 men—the same?

General McCawley. Yes, sir.

Mr. KELLEY. You will put in any further reduction that can be made with a lesser number?

General McCawley. Yes, sir.

Mr. KELLEY. What is this new item at the top of page 162?

General McCawley. I do not know whether you will deal with that or not. I have the explanation of it. It is just a bookkeeping transaction with the Treasury Department to adjust the account of that officer, Major Pratt.

Mr. KELLEY. Is there any money involved?

General McCawley. No, sir. He sent an automobile to be repaired on a price given by the company. When they got it there, taking it apart, they found two or three little parts that had to be renewed, which cost \$43.95—more than the amount stated in the contract. That could not have been ascertained until the machine was taken apart and the work had to be done. It is just to adjust the account of this officer held up in the Treasury.

MARINE BARRACKS, SAN DIEGO, CALIF.

FOR FURTHER DEVELOPMENT OF BASE, PURCHASE OF LAND, ETC.

Mr. KELLEY. General, on page 120 there is an item, "Toward further development of the Marine Corps base, including not to exceed \$18,000 for the purchase of land," at San Diego, California, \$500,000?

General LEJEUNE. You can put in "To complete" if you want.

give you a little of the history of that. Last summer when we were making out these estimates I got the itemized list from the engineer at San Diego and our commanding officer out there, giving each building and each item of public works and the estimated cost thereof. It totaled somewhere between \$2,500,000 and 3,000,000; I have forgotten the exact amount. It involved the original appropriation which had been approved by the department during the war and had been submitted to the committee and which the committee had given its informal approval. General Kelley and I went over the items, and, realizing that we could not have all the buildings and ought not to have them, under existing conditions, and we cut out all except what could be completed for \$1,000,000.

KELLEY. This amount will finish up the job?

General LEJEUNE. Yes, sir.

KELLEY. What about the purchase of land?

General LEJEUNE. There is a little tongue of land that comes in at [indicating] and affects some of the buildings—it comes out in the place where we want to locate a building. Here [indicating] is the regular reservation and this little tongue of land is a little down like that [indicating]. It is only an acre or two. It cuts into our grounds. I do not know why it was not bought originally.

The \$500,000 will buy that little tract of land in addition to completing the construction of the necessary buildings.

TUESDAY, MARCH 21, 1922.

BUREAU OF NAVIGATION.

STATEMENTS OF CAPT. PHILIP WILLIAMS, ASSISTANT CHIEF OF BUREAU OF NAVIGATION; CAPT. W. D. MACDOUGALL, SUPERINTENDENT NAVAL OBSERVATORY; COMMANDER J. BROWN, AND MR. EDWARD HENKEL.

TRANSPORTATION AND RECRUITING.

KELLEY. We have with us this morning Captain Williams, Bureau of Navigation. The first item under the Bureau of Navigation is transportation and recruiting. How much are you asking for transportation and recruiting for 1923?

Captain WILLIAMS. For 65,000 men?

KELLEY. Yes.

Captain WILLIAMS. The modified estimate, the best I can submit at present time, is \$5,218,175.54. That item is made up as follows:

1. For travel allowance of enlisted men discharged at expiration of enlistment, \$1,504,800. In explanation—

KELLEY (interposing). Suppose you give the entire list and we can start at the top and consider each one separately. Then the items will appear together, with the total.

Captain WILLIAMS. Item 2. For travel allowance of men given discharge by reason of reducing the force, \$1,065,900.

Item 3. For transportation of enlisted men and app and applicants for enlistment at home and abroad, in and transfers en route, or cash in lieu thereof, \$1,503,600.

Item 4. Same title as item 3, and should be grouped in head in appropriation, \$471,020.

Item 5. Transportation to their homes, if residents of States, of enlisted men and apprentice seamen discharged on survey, with subsistence and transfers, en route, or cash in \$5,461.17.

Item 6. Transportation of sick and insane enlisted prentice seamen to hospital, with subsistence and tra or cash in lieu thereof, \$40,918.87.

Item 7. Transportation of enlisted men of the Nav Force to and from duty, with subsistence and transfers cash in lieu thereof, \$300,000.

Item 8. Transportation of civilian officers and crews d auxiliaries, \$500.

Item 9. Apprehension and delivery of deserters and for railway guides and other expenses incident to \$3,000.

Item 10. Expenses of recruiting for the naval service, \$

Item 11. Rent of rendezvous and expenses of maintai \$131,033.02.

Item 12. Advertising for and obtaining men and app men, \$2,000.

Item 13. Actual and necessary expenses in lieu of mileage officers on duty with traveling and recruiting parties, \$2,000.

Item 14. Transportation of dependents of enlisted men, \$82,12

A total of \$5,218,175.54.

TRAVEL ALLOWANCE OF ENLISTED MEN DISCHARGED AT EXPIRATION OF EN

MR. KELLEY. Now give us an analysis of item No. 1. allowance of enlisted men discharged at expiration of e

Captain WILLIAMS. There will normally be 41,000 c expiration of enlistment in 1923. As explained in it z, 1, these will be given early discharges on or about July 1, in order to reduce the Navy to 65,000, the total allc and; t 41,000, minus 17,000, equals 24,000 discharg by t enlistment. These men must be returned to the c enlistment at a rate of 5 cents a mile, the ave or c \$62.70. The total cost of this item is 24,000 th s 1,500, 800. The figure \$62.70, the average cost I follows: For the fiscal year ending June 30, 1921, Accounts reports that the cash mileage al 1,50 we discharged during that time 41,792 men re therefore the average cost is \$62.68 per man. J ending June 30, 1920, that is, the year p counts reported that the cash mileage a o u to 1,50 we discharged during that time 114,522 i n, mileage; therefore the average cost during ti j man.

MR. KELLEY. Before you take up item 2, be to exhaust each item as we go along. You

unusual conditions this last year which would not be repeated coming year to bring that up from \$38 to \$63, speaking in round numbers?

Captain WILLIAMS. I am estimating on \$63; it is a hard estimate to make but, in my opinion, the differences which caused that excess of 3 over \$38 still exist.

Mr. KELLEY. To what do you attribute that increase, principally?

Captain WILLIAMS. I attribute it principally to the fact that the fleet has been divided. The fleet, speaking approximately, went to the west coast in the fall of 1919; therefore, that element did not carry its full weight in the average which is expressed in the \$38 man, but it begins to show its full force during the fiscal year 1921, and I see no reason at the present time, unless conditions are radically changed, why we should take anything but the last average—that is, \$62 or \$63, in round numbers.

Mr. BYRNES. What is the explanation? The fact that the men traveled a greater distance from the Pacific coast or their enlistments expired there?

Captain WILLIAMS. We have made a very minute study of the matter and I may summarize it by saying that the vast majority of men who are enlisted come from the east coast; many of them have to be sent to the west coast and that brings the average of transportation up as long as the fleet is divided.

Mr. BYRNES. If that be true, you have really increased the number of ships on the Pacific coast over and above what they were in the year ending June 30, 1921, have you not? Have you not more ships on the Pacific coast to-day than you had June 30, 1921?

Captain WILLIAMS. Yes, sir; I do not know about more in number but more men.

Mr. BYRNES. Have you more men?

Captain WILLIAMS. I think we have; yes. Therefore, the average would tend more to go up than it would to come down.

Mr. BYRNES. If you base it on the fact that the fleet is on the Pacific coast and you now have more ships on the Pacific coast than you had in the year ending June 30, 1921, I do not see how you can hope for much of a change.

Captain WILLIAMS. We can not hope for any decrease, and our best figure is the average for 1921.

Mr. BYRNES. And that is the real explanation in your mind?

Captain WILLIAMS. In my mind that is the explanation, at least, the greater part of the explanation; there may be others of a minor character but they would, to a certain extent, be more subject to dispute, and I am not prepared to say whether that is the whole cause.

Mr. DAVIS. Has the cost of transportation increased?

Captain WILLIAMS. I think it has.

Mr. DAVIS. You said 5 cents per mile; has that been the established rate?

Captain WILLIAMS. That is law.

Mr. DAVIS. And you think otherwise than that the cost of transportation has been increased?

Captain WILLIAMS. I am inclined to think it has, but I would not base my opinion entirely on that; I prefer to base my opinion on the greater length of travel.

Mr. OLIVER. I understand you have a mileage allow

Captain WILLIAMS. This is for enlisted men, and I say that they be paid 5 cents.

Mr. OLIVER. Since you predicate the increase almost all the division of the fleet, which results in longer travel Pacific coast, I am wondering, if Congress should largely enlist personnel as you indicated, whether you could considerable money to the Government by having the brought, not over the railroads, but around to the Atlantic some of your own vessels and distributed from the Atlantic

Captain WILLIAMS. We do that to the very greatest extent possible.

Mr. OLIVER. In other words, a difference such as your shows would certainly justify the assembling of these men on your own vessels and then sending them to the from the nearest ports on the Atlantic?

Captain WILLIAMS. If a man is discharged on the 1 and his home is in Chicago ---

Mr. OLIVER (interposing). You do not catch the point. contemplating the discharge of many of these men in advance time when they would be entitled to their discharges, given that right. Now, if in running over the list you intend to discharge you find that a large number from the territory around New York or Boston, could you very great saving to the Government, bring those men through the canal and have them discharged on the Atlantic than on the Pacific coast?

Captain WILLIAMS. That is done, sir.

Mr. OLIVER. Well, you would do it to a larger extent. If served with notice long before July as to the number required to let go, could you not begin to assemble them and know where they were going? Do you not think that?

Captain WILLIAMS. We would try.

Mr. OLIVER. Would you not be able to do it?

Captain WILLIAMS. I am unable to say, but every to do that, Mr. Oliver.

Mr. OLIVER. Suppose Congress should determine to enlist personnel to 65,000 or 70,000, which would result in missing from the service early in the next fiscal year a number of men, you would, of course, begin at once to determine could best afford to spare, would you not?

Captain WILLIAMS. Yes, sir.

Mr. OLIVER. And where you found that their enlistment end anyhow during the next year, of course, you would first, would you not?

Captain WILLIAMS. Yes, sir.

Mr. OLIVER. And with a list thus made out, it would could work a large saving by adopting a different plan as you suggested and which you think will result in a saving from \$38 to \$63.

Captain WILLIAMS. The plan you speak of, of transporting men by boat, let us say, from the Pacific to the port nearest their homes, is one which is included and has been included in both averages, both

.70 and the \$38. It is possible, if these discharges take place short periods of time and in large numbers, that some development of the scheme of which you speak might be possible.

OLIVER. Here is the idea I had in mind: I can understand, if they continued at its present strength and the enlistment periods just as they have in the past from time to time, that it would be possible to collect, perhaps, at one point a large number of them on a boat, and send them to another place, but if you were served with notice that you must get rid of 30,000 or 40,000 at a certain time in the future, and you say all of this increase is due to the fact that a large number of those men are on the west coast and you have got to pay heavy transportation charges across the continent for them, of course you could assemble those men, put them on a boat, and bring them around at much less cost.

WILLIAMS. We have made certain allowances, which will be later, in trying to discount the difference between the ordinary discharge and the excessive rate of discharge that we contemplate take place before July 1, 1923.

OLIVER. So, if we gave you this amount that would not in any way discourage you in your efforts to economize by assembling them around by boat if you found that was feasible?

WILLIAMS. Not in the least.

MR. ROOSEVELT. I think I can say on that point that the plan or idea you have in mind has been worked over by the department that is intended to offset the fact that we have been tending more and more men on the coast, and that therefore, under various circumstances, the \$63 should be more instead of less this year. We are counting on offsetting it by trying to assemble the men as you say; we are trying to offset the probable increase by trying to assemble the men just as you say.

OLIVER. You mean assemble them for discharge?

MR. ROOSEVELT. Yes; just along the lines you have stated; counting on that to offset it rather than to decrease.

OLIVER. What do you mean by offsetting?

MR. ROOSEVELT. Offsetting an increase rather than a decrease. In other words, we have more men out there now than we had before, and we have been moving more ships out there. Now, if we are to bring them back and bring them back, and thereby reduce the cost, that offsets the increase to the \$63.

KELLEY. Now, Captain, you want \$1,504,800 for travel allowance for enlisted men that are to be discharged after July 1 next?

WILLIAMS. Yes, sir.

KELLEY. Mr. Oliver asked you a very pertinent question, as to whether or not in reducing the Navy between now and the 1st of July you would not make a reduction largely from those men whose terms of enlistment expire next year.

WILLIAMS. I think you will find that in item 2, sir.

KELLEY. That would make a great deal of difference with

WILLIAMS. No, sir.

KELLEY. Why would it not?

WILLIAMS. Let us take item 2.

KELLEY. No; let us finish up item 1. Why would it not?

Mr. KELLEY. The only question is whether "as far as means really that or not.

Commander BROWN. Yes, sir.

Mr. KELLEY. Whether or not you have actually carried far as possible that way.

Commander BROWN. You would have nothing but performing transport duty, taking men around to be

Mr. KELLEY. How many men do you discharge a month?

Captain WILLIAMS. Forty-one thousand a year; 4,000 a

Mr. KELLEY. That is in all the service, in the Atlantic Pacific. You have only half of your people there. You want to transport 2,000 a month back from the Pacific, or, say, 1

Captain WILLIAMS. If there is any better figure than us take it.

Mr. KELLEY. I am trying to get one.

Captain WILLIAMS. Let us agree as to the difference, if difference, and let us take any figure you please and on the number of men to be discharged, and if there is a can be met later.

FOR TRAVEL ALLOWANCE TO MEN GIVEN EARLY DISCHARGE.

Mr. KELLEY. Take the second item. How did you get figure?

Captain WILLIAMS. This is a figure that I want to call attention to and to explain that this sum of money more proper to the appropriation for 1922, and I introduced it here to situation clearer.

There will be approximately 85,000 men in the service on 1922, and this number must be reduced to about 65,000. It is proposed to discharge at once 1,000 chief petty officers and 16 ratings, these to be selected from those whose enlistments expire during 1923. For transportation of these men to their \$62.70 per man, 17,000 by \$62.70 equals \$1,065,900.

Mr. KELLEY. That will be a deficiency?

Captain WILLIAMS. That is more properly called a deficiency.

Mr. BYRNES. For this fiscal year?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That item should come out of this bill entirely.

Captain WILLIAMS. If you approve this plan.

Mr. KELLEY. This is an item which could be determined a little later on, if it is a deficiency?

Colonel ROOSEVELT. It is this year's deficiency.

FOR TRANSPORTATION OF ENLISTED MEN, APPRENTICE SEAMEN, AND APPRENTICE ENGINEERS.

Mr. KELLEY. Go to the third item.

Captain WILLIAMS. The 24,000 men discharged by reenlistments must be replaced. In addition, there are 8,000 lost by other than "honorable" discharges, such as dishonorable discharges, such as for bad conduct, and dishonorable discharges, men to own conduct, etc. This means that 24,000 + 8,000 = 32,000 reenlistments are necessary. Of the 24,000 "honorable" discharges, it is estimated that there will be 14,000 reenlistments.

be made up by first enlistments; $32,000 - 14,000 = 18,000$ first enlistments required.

reenlisting are sent to ships direct, at an average cost of \$38.19 per man. For this there is required (a) $14,000 \times \$38.19 = \$534,660$.

Unenlisted men are sent to training stations, at an average cost of \$31.12, and later to ships at an average cost of \$22.71 per man.

The total cost per recruit is, therefore, \$53.83, and for 18,000

(b) $18,000 \times \$53.83 = \$968,940$. The total for this item is \$1,503,600.

KELLEY. Of the 24,000 men whose terms of enlistment will expire this next year, you estimate how many will come back?

WILLIAMS. Fourteen thousand.

KELLEY. That is 60 per cent?

WILLIAMS. Yes, sir.

KELLEY. That is based upon your experience in the past?

WILLIAMS. Our experience in the past has been around 60 per cent, but owing to circumstances we raised it a little bit. In 1918, for instance, we lowered the 8,000.

KELLEY. That would be 14,000 who would be brought back to their homes on the Atlantic coast, probably?

WILLIAMS. Yes, sir.

KELLEY. There is no dispute about that item, I suppose.

WILLIAMS. To make up the difference between that and the number required, you figure you would have to have 18,000 reenlistments or 14,000 first enlistments, one or the other?

WILLIAMS. Yes, sir.

KELLEY. You figure that they will come back at the same rate?

WILLIAMS. Yes, sir.

KELLEY. Now, the probabilities are that out of the number of men who may have been discharged, you can reenlist a much smaller proportion than you have figured. The amount in money would be the same, but you would get a larger percentage of people from this great force that has been discharged, and it is probable there would be so many that would want to come back that the number would exceed 60 per cent of those whose terms of enlistment expire.

WILLIAMS. My normal estimate on reenlistments is 50 per cent.

KELLEY. Between now and the 1st of July you will discharge 17,000 men ahead of time, and during the next year, after those boys have been out for a few weeks or months, have you not an idea that a large percentage of the 17,000 would reenlist for two years or more?

WILLIAMS. Experience is all that we can go by. For the two years we have developed the search for reenlistments to a high degree.

KELLEY. During the next year you would have a method of doing so, though. You would discharge for expiration of enlistment 41,000 men.

WILLIAMS. Yes, sir.

KELLEY. And out of that number, you would probably get 20,000?

WILLIAMS. No, sir; we would probably get 20,000.

KELLEY. You figured on 60 per cent, did you not?

Colonel ROOSEVELT. In the 14,000 that Captain Willing of, he is including, I believe, the reenlistments of 0
been in the service before and who will come back.

Commander Brown. Last year's experience was about 6

Colonel ROOSEVELT. I think there is a misunderstanding.

Commander Brown. About 68 per cent.

Commander Brown. That is correct.

Commander Brown. We have not attempted to s e

Commander BROWN. The reenlistments represent
had previously served in the Navy.

Commander Brown. Yes, sir.

Colonel ROOSEVELT. It would be a reenlistment, continuous service.

Mr. BYRNES. Suppose you find out and put it in the

Commander Brown. I will do so.

Commander Brown. We can find out, by
of the men in the Navy, how many of the
one year, with continuous service, and he

nts. We have the figures available so far as the recruiting is concerned.

- OLIVER. I know that the Navy generally does things pretty promptly, and it occurred to me that this list should be kept up at times, so that you would know from what sources your replenishing forces would have to come.

- DAVIS. Would not the same conditions that existed last year be true for another year?

Captain WILLIAMS. We are talking about two separate things.

- DAVIS. Would not the same conditions exist?

Captain WILLIAMS. The two statements are conflicting, and there is misunderstanding of the word "reenlistment."

- BYRNES. For the purpose of this item, it makes no difference.

- KELLEY. Captain, I think you made a mistake in these facts: You are going to start off now with 65,000 on the 1st of July, and then you are going to lose how many? You have figured there as 17,000, have you not?

Captain WILLIAMS. No, sir; by the 1st of July we will lose 24,000 men, 8,000, or 32,000.

- KELLEY. You have 65,000, and you will lose 24,000 men?

Captain WILLIAMS. Plus 8,000.

- KELLEY. You will lose 24,000 by expiration of enlistments.

Captain WILLIAMS. Yes, sir; plus 8,000.

- KELLEY. What about the 8,000?

Captain WILLIAMS. The 8,000 will go out for other causes.

- KELLEY. Making 32,000 altogether?

Captain WILLIAMS. Yes, sir. We have cut that 8,000 down to what I would normally expect. That is by reason of taking account the extraordinary character of the personnel problem for the next year. If you discharge all of those men, or if you are to change the number, it is quite conceivable that the number would go out on medical-survey discharge, bad-conduct discharge, those who run away, or are deserters, etc., will be decreased. Therefore, I have decreased that 8,000 below what I would normally expect it to be.

- KELLEY. If you have included the 8,000 down here, then this total of 65,000 should be 69,000. You have 4,000 too many in there. You have counted the 4,000 that are going to go out between the 1st of July in this calculation.

Captain WILLIAMS. I did not say that they would go on the 1st of July.

- KELLEY. You said that the Navy would be reduced by 4,000 from various causes, bringing it down to 65,000.

Captain WILLIAMS. I did not intend to say that we would reduce 5,000 on the 1st of July. I tried to make it as plain as I could. I rather expected the Navy on July 1 would have to have more than 65,000 men.

- KELLEY. Your figure here would bring it back to what it was on the 1st of July?

Captain WILLIAMS. I really do not see the bearing. We will lose 24,000 by discharge during the fiscal year 1923, and we will lose 8,000 men from other causes.

- KELLEY. No; because the 4,000 you will lose before the 1st of

Captain WILLIAMS. What has that got to do with The only way to arrive at the 8,000 is to say that it is of either 69,000 or 65,000, representing discharges due to insanity, disease, or any other causes than honorable. These are the discharges that are not honorable. It is either loss to the service besides honorable discharges. It is a difference whether you call it 65,000 or 69,000.

Mr. KELLEY. It makes a difference of 4,000.

Colonel ROOSEVELT. I think the trouble comes in on the problematical 4,000. The 4,000 is composed of a certain long-service chief petty officers for whom we are legislation to place them on a retired basis. As you chief petty officers are out of proportion with the other that we have 4,000 to be called out by the 1st of July. It would not definitely determine even yet just exactly what it is. It would be composed of 80 per cent of an entirely which would not reflect itself in the 8,000. I think that is the situation.

Mr. KELLEY. You start off on the 1st of July either with this 4,000 men.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. If you start off with them, you do not replace them.

Colonel ROOSEVELT. If we start with 69,000—

Mr. KELLEY. You start off with 69,000 men?

Colonel ROOSEVELT. After the 1st of July, if the legislation which we are talking about goes through, there is an additional 4,000 plus the 8,000.

Mr. KELLEY. I think we are nearly together.

Captain WILLIAMS. I do not get your conclusion.

Mr. KELLEY. If you will straighten me on the conclusion, I am all right.

Captain WILLIAMS. That 4,000, if it is 4,000, will be either the 24,000 or the 8,000, and it will not be added to. We will have the 32,000 to handle during the fiscal year 1923, whether you start with 69,000 or start with 65,000. We start with 69,000, and suppose on the 2d of July we then our figures of 24,000 and 8,000 will not have changed.

Mr. KELLEY. But the 4,000 men do not come in providing for bringing them back.

Captain WILLIAMS. No, sir; I provide for replacement.

Mr. KELLEY. We will figure that out. Why do you have 14,000 men at \$38.19 and 18,000 men at \$50.83?

Captain WILLIAMS. The 14,000 at \$38.19 are men who do not have to go to the training stations and are transferred to the ships. The reenlisted men go to the training stations.

Mr. KELLEY. Now, if my theory should be correct, the 14,000 disbursements out of the whole body of discharges would be 14,000, then the number in excess would go to 18,000 instead of at \$50.83?

Captain WILLIAMS. If that estimate of 14,000

Mr. KELLEY. You base that estimate of 14,000 on the basis of 60 per cent of those whose enlistments

your experience shows that 68 per cent of them have reen-

uptain WILLIAMS. That is a misunderstanding. Commander vn says that 68 per cent reenlisted, but your question relates to a different thing. You asked how many out of this 41,000 will list within a year, and I said 14,000.

r. KELLEY. Here is a certain number that go out upon the expiration of their enlistments, and you get back a number of them in the of reenlistments, and you get reenlistments from others who have previous service, the result being that you get back 68 per cent men who have had previous service, or that was the experience year.

Commander BROWN. Yes, sir; that is true.

r. KELLEY. You have not figured it on any such basis as that at have you?

uptain WILLIAMS. No, sir.

r. KELLEY. We will revise your figures.

r. OLIVER. If the pay bill that is now being considered becomes v before July 1, since it materially reduces the pay of the enlisted for the first four or six months, what effect would that have upon ability to get new men or recruits into the service?

uptain WILLIAMS. I think we can get recruits, provided we can a career ahead of them.

r. OLIVER. You must remember that the young men we are going lay to are, perhaps, not visioning any great career in the future, they will be attracted into the service by other and more immediate considerations. You will have in the service at that time men will be retained on a different basis from that of the man who s now. I have been seriously thinking that matter out, because not want to do anything that would in any way hamper you in nishing these important places. I knew that you were top-y in the higher places, and I was wondering whether you had a careful thought to that phase of it.

ptain WILLIAMS. We have, sir.

. OLIVER. In other words, this bill, if accepted, will retain by a g clause the pay of those who will enter before the 1st of July. you will suddenly cut off those rates, and the men who will come backwards will come in on an entirely different basis.

. KELLEY. It was stated the other day that they were hanging ad the recruiting stations to see what they would do about isting.

. OLIVER. That is a matter of serious import to you.

lonel ROOSEVELT. I do not think you will find a lot of them ing around.

. KELLEY. They will be going right in?

lonel ROOSEVELT. They will either come in or decide to remain They will not hang around.

. KELLEY. We will take up item No. 4.

ptain WILLIAMS. Item No. 4 covers transfers of men between and stations, other than those noted in the above items. It ges 66½ cents per man per month, or \$7.96 per annum. For a of 65,000 men this cost would be 65,000 times \$7.96 per annum, \$517,400. This includes the cost of the transportation of the d discharged for physical disability due to their own misconduct,

and transfers of sick and insane. The cost of this item of expenditure items 5 and 6, respectively, is \$46,380. This amount deducted from the above, and the total cost of item 4 is then \$911,410 minus \$46,380, or \$471,020.

Mr. KELLEY. Is that the same figure you gave last year for the entire movement of men in the Navy?

Captain WILLIAMS. I am not certain whether it is or not.

Commander BROWN. It was 13½ cents per month per man.

Captain WILLIAMS. This includes the cost of transportation of men discharged for physical disability due to their own misconduct.

TRANSPORTATION OF MEN DISCHARGED BY MEDICAL SURVEY.

Item 5 covers men discharged by medical survey for physical disability due to their own misconduct. This represents 0.0022 of average strength. For 65,000 men this would be 143 men. Transportation only for those men to their places of enlistment \$38.19 per man, there would be required 143 times \$38.19 \$5,461.17.

TRANSPORTATION OF SICK AND INSANE MEN.

Item No. 6 is based on the best available figures and represents 0.0069 per cent of the average strength that is sent annually to tuberculosis hospital at Las Animas, Colo. The average distance 1,600 miles, at 5 cents per mile, or \$80 per man. For a Navy of 65,000 men the number so transferred would be 449 and the cost would be 449 times \$80, or \$35,920. The question that arises in mind there is about Las Animas. The location is only slightly different from the other, and if they do not go to Las Animas it will be to some other place close by.

Mr. KELLEY. These are tuberculosis cases?

Captain WILLIAMS. Yes, sir. For insane patients who are transferred to hospitals at Napa, Calif., and Washington, D. C., the average transportation cost, including that of guards, is \$24.87. The number of the insane committed each year is 0.0031 of the total strength. For 65,000 men the number of commitments would be 201, and the cost would be 201 times \$24.87, or \$4,998.87. The sum of those parts of this item is \$40,918.87.

TRANSPORTATION OF RESERVES.

Item No. 7 covers the question of the transportation of reserves and this is the best calculation we can make. The modified calculation produces about \$300,000. That involves a number of elements.

Mr. KELLEY. Give us the number of men to be transported and the rate.

Captain WILLIAMS. I have been getting pretty complicated, but the \$300,000 is largely an estimate.

Mr. KELLEY. Give the sum total with the number of men we have in mind and the average cost of transportation.

Captain WILLIAMS. This is based on the assumption that 120,000 men are in the reserves, and that 50 per cent will take the transportation during the fiscal year 1922-23. A certain number of men are assigned to each State, and we take the average cost of transportation from the capitol of the States to the nearest seacoast. The sum total

uced by this calculation is \$834,975. Now, due to the fact that y of the men live in States on the seacoast, we would reconsider estimate and make some reduction. We took States like achusetts and New York, Virginia and Florida, and cut them 1. Finally we got \$300,000 as the net result of the combined lations on the subject.

7. KELLEY. Some of the men living back in the interior would more for transportation than others living nearer the seaboard? ptain WILLIAMS. Yes, sir.

TRANSPORTATION OF CIVILIAN OFFICERS AND CREWS OF NAVAL AUXILIARIES.

Item No. 8 is put in simply to hold the title of the appropriation. e all the auxiliaries are now manned by reserves, and no civilians mployed, it is desired to retain the wording of this item in the n case it should be found necessary to employ civilians on this . Consequently, an arbitrary nominal sum is named for such portation, namely, \$500.

TRANSPORTATION OF CIVILIAN OFFICERS DELIVERING DESERTERS, ETC.

Item No. 9 covers the sum necessary for the purchase of railway es for all stations, at \$12 each, and for the payment of the portation of civilian officers delivering deserters, the total ant being \$3,000.

7. KELLEY. Is this largely for railroad guides for officers of the rtment?

ptain WILLIAMS. No, sir. If a man deserts and is apprehended, ailroad fare must be paid.

7. KELLEY. Railroad guides constitute a small item in this?

ptain WILLIAMS. Yes, sir.

7. KELLEY. It is almost entirely for the apprehension and ery of deserters?

ptain WILLIAMS. I am not prepared to state just how it is led.

7. KELLEY. Railroad guides for the department must represent all item.

mmander BROWN. The railroad guides cost about \$12 apiece.

7. KELLEY. How many do you buy?

mmander BROWN. We buy a guide for each recruiting ship all other stations that handle transportation.

7. KELLEY. How much would it be out of this \$3,000?

mmander BROWN. I would have to look that up.

7. KELLEY. It is a small sum and maybe you can give an approxi-on of it.

ptain WILLIAMS. We can get the bills for them.

7. KELLEY. I do not want to bother you with looking it up.

mmander BROWN. It is probably \$600.

7. KELLEY. And the rest of it is for the payment of officers in ehending deserters?

mmander BROWN. It is for the payment of the transportation vil officers in apprehending deserters and also the posting of rds.

EXPENSES OF RECRUITING FOR THE NAVAL SERVICE.

Captain WILLIAMS. Item 10, expenses of recruiting for service, \$105,820. For recruiting bureau, \$69,000; expense turing particular activities and for miscellaneous publicity cards, signs, and exhibits, \$9,840; local printing, \$10,000 and subsistence of applicants, \$42,000, and expenses of tra cruiting parties, \$5,000, producing a total of \$138,640. W reduce that by cutting it down and we did cut it down by making the revised estimate \$105,820.

Mr. KELLEY. Do you know what your cost per month no

Captain WILLIAMS. Per man per month?

Mr. KELLEY. No; the total cost per month?

Captain WILLIAMS. These are the actual expenses, and that by 12—

Mr. KELLEY (interposing). I did not know but what you c me about what you were paying per month.

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Mr. KELLEY. But how much is it costing you?

Captain WILLIAMS. I will get it for you.

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Mr. KELLEY. Can you tell me how much it costs per mon present time?

Commander BROWN. Not exactly.

Mr. KELLEY. Approximately?

Commander BROWN. The difference between \$105,000 and is \$25,000, and it would be about \$9,000.

Mr. KELLEY. That is about what you are asking here?

Commander BROWN. Yes, sir.

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Commander BROWN. If my memory serves me correctly there are 67 officers.

RENT OF RENDEZVOUS, ETC.

Mr. KELLEY. Now Item No. 11.

Capt. WILLIAMS. Rent of renezvous and expenses of mai the same, \$131,033.02.

Mr. KELLEY. Just give us a short statement about that.

tain WILLIAMS. For operation of trucks at recruiting stations, trucks at \$592.41 per annum, \$13,033.02; rental of offices, \$75,000; , varnishes, and equipment for recruiting service, \$3,000; and miscellaneous expenses, \$40,000: making a total of \$131,033.02.

KELLEY. This is mostly office rent for recruiting is it not?

tain WILLIAMS. Yes, sir.

KELLEY. What do you mean by rent of rendezvous? That is rather poetic sound.

Commander BROWN. That is copied out of the old appropriation. It means recruiting stations.

KELLEY. This is based on the number of stations you are now maintaining?

Commander BROWN. Yes.

KELLEY. I understand the Marine Corps has put nearly all of its recruiting stations in Government buildings. Can you not do that coming year?

Commander BROWN. Just about a month ago we wrote to the Surgeon General of Real Estate—a new officer in the Treasury Department—who has charge of that—and asked for Federal space in all cities in which we have navy recruiting stations, with the exception of New York and day before yesterday we had a reply from him offering us space in only four cities. We already have Federal space in six others, and would still leave us 20 stations for which we must go out and find space. Incidentally, during the last year we have been able to reduce the lessors of a number of recruiting stations to cut their amounts considerably.

ADVERTISING FOR MEN AND APPRENTICE SEAMEN.

KELLEY. Now Item 12.

tain WILLIAMS. Advertising for and obtaining men and apprentice seamen, \$2,000.

KELLEY. That is an item which you usually carry at about what amount?

tain WILLIAMS. Yes, sir; but I think we have carried it at a higher figure.

Commander BROWN. It has been higher, and it was higher in the previous years, but last year it dropped down.

KELLEY. These are the posters which you put up advertising men on the sea?

Commander BROWN. This particular sum is for special advertising in the way of newspaper advertising.

KELLEY. You will not need to do very much of that.

Commander BROWN. But, as a rule, we do not use that at all, and the Secretary of the Navy has full jurisdiction over it.

KELLEY. You will probably not use any of this item, but it is a new item, anyhow.

tain WILLIAMS. The next is transportation of dependents of enlisted men, \$82,122.48.

EXPENSES IN LIEU OF MILEAGE TO OFFICERS WITH TRAVELING EXPENSES.

KELLEY. There is another item, item No. 13.

tain WILLIAMS. Actual and necessary expenses in lieu of mileage to officers on duty with traveling recruiting parties, \$2,000. This was put in, I think, a year or so ago.

Mr. KELLEY. That pays their actual expenses?
 Captain WILLIAMS. Yes, sir.

TRANSPORTATION OF DEPENDENTS OF ENLISTED MEN.

Mr. KELLEY. Transportation of dependents of enlisted men \$82,122.48. On what is that based?

Captain WILLIAMS. That is based on the law which permits Navy to transport the dependents of enlisted men the same as is in the Army.

Mr. KELLEY. Do you know what you have paid out this year so far?

Captain WILLIAMS. I could find out, but I have not the amount now.

Mr. KELLEY. This is a good deal more than you estimated for this year when you had a larger Navy.

Commander BROWN. This figure is twelve times the average monthly expenditure during the last year.

Mr. KELLEY. But that was based on a larger Navy, and you would have to make it six or seven times.

Commander BROWN. It might be slightly reduced but I doubt it because the appropriation for last year ran out within the first few months of the current fiscal year, and since then we have had to reapply for applications entirely and we have simply had to use whatever Navy transportation there was. I do not think that sum is excessive. In fact, I am certain it is not.

Mr. KELLEY. That finishes the item of recruiting and transportation, does it not, Captain?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Then we might turn to the item in which Captain MacDougall is interested.

INSTRUMENTS AND SUPPLIES.

Captain WILLIAMS. That will be "Instruments and supplies."

Mr. KELLEY. This present year you had \$750,000 for "Instruments and supplies." What are your revised estimates for that, Captain MacDougall? These figures are based on a Navy of 65,000 men.

Mr. KELLEY. How much have you there, Captain?

Captain WILLIAMS. \$690,112. May I divide that?

Mr. KELLEY. Yes; apportion that.

Captain WILLIAMS. This is for 65,000 men: Services and maintenance in repairing, correcting, adjusting, and testing compasses on shore and on board ship, \$48,193; nautical and astronomical instruments and repairs to same, \$125,612; compasses, compass fittings, including binnacles, tripods, and other appendages of ship's compass, \$252,774; logs and other appliances for measuring the ship's way, leads, and other appliances for sounding, \$33,249; for the necessary civilian electricians, mechanics, inspectors, draftsmen, and clerks and assistants for gyro compass testing, repair and inspection, and chronometer caretakers, \$21,784; supplies for seamen's quarters, \$500; all pilotage and towages of ships of war, canal tolls, wharf dock and port charges, and other necessary incidental expense of similar nature, \$165,000; libraries for ships of war, professional books

books, and papers, \$20,000; maintenance of gunnery and other classes, \$18,000; photographs, photographic instruments, material, \$500; and printing outfits and materials, \$4,500, making a total of \$690,112. That estimate is the best we could make. We made estimates where estimates were possible and made proportionate where proportionate sums were possible, and the sum total is the result. Of course, what we will spend depends on what will be done.

PILOTAGE.

KELLEY. The pilotage item of \$165,000 seems quite large now as our ships are not in foreign waters very much.

WILLIAMS. It does not seem large to us.

KELLEY. That is because you are in the habit of handling big ships.

WILLIAMS. No; it is because we are accustomed to handling ships.

KELLEY. I have a sort of recollection that the reason for this item was the necessity for hiring pilots when our ships were in such large numbers.

WILLIAMS. It is not only abroad in large numbers but it is dependent on the amount of cruising and it is dependent on a number of other items.

KELLEY. Do we have to hire pilots in our own waters?

WILLIAMS. Oh, frequently. You take 22 feet of water in harbor at Portland, Me.

KELLEY. And you have to call in pilots from the shore?

WILLIAMS. Yes, sir; and it would be taking an undue amount to do anything else. In the old days we took pilots into Hampton; when we did not use them, the idea being to get those men accustomed to handling men-of-war.

KELLEY. Do you know what part of this item is for pilotage?

WILLIAMS. Do you have it itemized in that way, Mr. Kelley?

HENKEL. No; we do not know how much was spent for that item, because the reports are made to us combined.

WILLIAMS. Pilotage, towage, canal tolls, wharfage, dock port charges and other expenses of a similar nature were originally estimated at \$183,500. That was for 100,000 men, and we cut it through mathematics, if you please, to \$165,000.

KELLEY. But you did not answer my question. How much of that is for pilotage?

WILLIAMS. I can find out.

KELLEY. You do not have that information with you?

WILLIAMS. No, sir.

KELLEY. Would it be much bother to find out?

HENKEL. I do not think we could find that for you, sir, in time useful on these estimates.

KELLEY. I do not want you to go to much trouble about it if it is a charge which must be met whatever it is, but somehow the House would like to know the total used for pilotage and of that sort.

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mmander BROWN. This particular sum is for special advertising ay of newspaper advertising.

KELLEY. You will not need to do very much of that.

mmander BROWN. But, as a rule, we do not use that at all, and ecretary of the Navy has full jurisdiction over it.

KELLEY. You will probably not use any of this item, but it is a item, anyhow.

ptain WILLIAMS. The next is transportation of dependents of ed men, \$82,122.48.

EXPENSES IN LIEU OF MILEAGE TO OFFICERS WITH TRAVELING EXPENSES.

KELLEY. There is another item, item No. 13.

ptain WILLIAMS. Actual and necessary expenses in lieu of ge to officers on duty with traveling recruiting parties, \$2,000. was put in, I think, a year or so ago.

number of men whose terms of enlistment will expire during the year, to assemble its ships at a certain point there, if you carry out the idea mentioned by you, so that the men can go immediately from the ships to the stations, thus saving expense at the stations, and also have there so that those men can take the places of the ships—is that the idea?

Captain WILLIAMS. That is the idea wherever possible.

Mr. OLIVER. Then I imagine you would probably have your fleet in the southern part of California, around San Diego, where there would be plenty of room to come in?

Captain WILLIAMS. Yes, sir.

Mr. OLIVER. The idea is to have your ships arrive and have your transports ready to receive the troops from your ships those you are going to discharge, that they have a sufficient number to discharge them and then bring them around if any of them are to be discharged.

CONTINGENT.

KELLEY. For the contingent item on page 27 you have an appropriation of \$20,000, and your estimate for the next fiscal year is 00.

WILLIAMS. You may make that \$16,000.

NAVAL TRAINING STATION, CALIFORNIA.

KELLEY. The California naval training station will be at San Diego this year, will it not?

WILLIAMS. I would like to say about these estimates that have been made for training stations that the situation regarding the training stations is rather involved and uncertain. I would like to say in that we have communicated with the senior officers on the subject and explained to them as much of the situation as we knew as it developed, or that we were able to explain, and I have not been able to satisfactorily adjust these sums to a condition which has not yet been developed. Therefore, I am quite aware that these sums are for largely based on unknown conditions. For the California training station we have asked for \$125,000.

KELLEY. Would it not be advisable this year to put in a provision for training stations making the several appropriations come from one fund to be used at your discretion?

WILLIAMS. I think so, making the funds transferable.

KELLEY. This station in California will be the one that will be in operation?

WILLIAMS. Yes, sir; that will be kept in operation, and we ask \$125,000 for it.

KELLEY. That is the amount you have spent down there for the last few years back?

WILLIAMS. Yes, sir.

KELLEY. Will the new school at San Diego be finished by the end of July?

WILLIAMS. I hope so. I hope it will be ready by the end of July, and I think it will at the present time.

KELLEY. In that event, Goat Island will be closed up?

WILLIAMS. That will be used simply as a receiving ship.

KELLEY. No part of this \$125,000 will be used for the receiving ship if the training station goes to San Diego?

WILLIAMS. If it goes to San Diego, it will be transferred.

KELLEY. Have you the details that make up this \$125,000?

WILLIAMS. Yes, sir.

KELLEY. You may insert the details in the record, showing the distribution of this \$125,000.

WILLIAMS. I will do so.

The statement is as follows:—

Maintenance of naval training station, Yerba Buena Island and San Diego, Calif.: land and material, \$150,000; buildings and wharves, none; general care, repairs, improvements of grounds, buildings, and wharves, \$30,546.68; wharfage, ferriage, net-car fare, \$1,609; purchase and maintenance of live stock, and attendance on same; wagons, carts, implements, tools and repairs to same, \$3,377.32; fire extinguishers, \$100; gymnastic implements, none; models, and other

articles needed in instruction of apprentice seamen, none; printing outfits and materials, and maintenance of same, \$400; heating and lighting, \$70,544. books, school books, and periodicals, \$1,936; fresh water, and washing, \$10. boxes and materials, none; and all other contingent expenses, \$22,636.20; maintenance of dispensary building, \$850; lectures and suitable entertainments for apprentice seamen, none; in all, \$150,000.

This is the original estimate; a proportionate reduction must be made to keep expenditures within the estimate of \$125,000 for 65,000 men.

NAVAL TRAINING STATION, RHODE ISLAND.

Mr. KELLEY. The next item is for the naval training station at Rhode Island. You have an appropriation for the current year of \$185,000 for this training station. Have you used that amount this year?

Mr. HENKEL. No, sir; we asked the department for permission to use some of it to save some of the buildings.

Mr. KELLEY. You have not used all of it?

Mr. HENKEL. No, sir.

Mr. KELLEY. How much have you used to date?

Mr. HENKEL. I have not those figures here.

Mr. KELLEY. You are asking \$75,000 for next year?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Is that merely a maintenance item?

Captain WILLIAMS. It is practically all maintenance.

Mr. BYRNES. You have an item of \$60,000 for wages.

Captain WILLIAMS. For the maintenance and upkeep of the training station there are included 1 joiner, 1 plumber, 1 pipe fitter, 1 electrician, 1 painter; for 150 days during the year 1 gardener, 1 general helpers, 1 laborer; and there is included the purchase of a small amount of material, not to exceed \$1,000 in value. These items are reduced from an expenditure under operating conditions of \$70,000.

Mr. BYRNES. This entire amount is for wages that you are paying men to keep up the buildings and grounds?

Captain WILLIAMS. Yes, sir; this is to keep that small force. There is still a naval representative there.

Mr. BYRNES. That is not included in the \$75,000, is it?

Captain WILLIAMS. Yes, sir. He has to have certain clerical assistance.

Mr. FRENCH. That is nearly twice what you are spending this year?

Captain WILLIAMS. The items making up the estimate are general care, repairs, and improvements to grounds, buildings, wharves, \$17,262; wharfage, ferriage, and street-car fares, purchase and maintenance of live stock and attendance on \$7,032.40; wagons, carts, implements, and tools, repairs to including maintenance, repair, and operation of two horse-passenger-carrying vehicles to be used only for official purposes, \$2,400—

Mr. BYRNES (interposing). Without going into those details, is the explanation of the fact that you expended in 1921 \$42,000, and you estimate an expenditure in 1923 \$18,000 more?

Captain WILLIAMS. My subhead here is \$17,000 for

ARNES. This is the note below your estimate: Expended in 2,000 under the head of wages, estimated under the head of 1922, \$33,000, and estimated for wages for 1923, \$60,000. This is constituting the total of \$75,000, as they appear in the statement, are wages, \$60,000, and repairs and maintenance, \$15,000. That makes \$75,000?

ARNES. No; that makes \$75,000.

ENKEL. We do not ask \$60,000 for wages. The statement was inserted before a detailed estimate was secured from the training station. That statement is now changed by the detailed estimate from the training station.

WILLIAMS. Suppose I read these items which, I think, will be found in the statement. There are not very many of them.

ARNES. It is useless to do that. I want you to explain the difference, if anything has occurred to explain this difference. You have been using enlisted men for all I know, and you may not be doing so now, and that may explain it; but there ought to be some explanation of the increase from \$42,000 to \$60,000.

WILLIAMS. In all probability that labor in one case includes clerical force and in the year before that clerical force may have been supplied by itself. However, I am not certain of that statement. Give me these details, and there are only a half dozen or dozen items.

EVER. What are you asking for to-day?

WILLIAMS. We are asking for \$75,000 all told, of which the items are: General care, repairs, and improvements to grounds, buildings, and wharves, \$17,262; that may include some labor; fuel, ferriage, street-car fare, \$200; purchase and maintenance of stock, and attendance on same, \$7,032.40; there may be some more; wagons, carts, implements, and tools, repairs to same, \$1,000; maintenance, repair, and operation of two horse-drawn vehicles to be used only for official purposes, \$2,400; fire extinguishers, \$1,200; heating, \$17,333; lighting and \$6,000; salt-water flushing and fire protection, \$10,000; books, schoolbooks, and periodicals, \$300; fresh water piping, \$4,500; all other contingent expenses, \$3,500; and pay for drafting, inspection, and messenger service, \$5,383.60, a total of \$75,000.

ELLEY. As far as you know, it is the policy of the department to keep this station on the basis you have indicated?

WILLIAMS. Until the situation changes and then there may be a change in the policy.

ELLEY. I suppose the limitation on clerical hire could be lifted if we took a notion to do it?

WILLIAMS. Perhaps so. They still have the records of a number of men but those records can be transferred.

ELLEY. This provides enough money to keep the plant in good-by condition?

WILLIAMS. Yes, sir.

ELLEY. So that nothing is running down?

WILLIAMS. As I understand it, nothing is permanently running down.

The commanding officer, however, states "the future only can tell whether the appropriation will be sufficient to prevent serious deterioration of Government property."

Mr. KELLEY. But it does not provide for the training of any at that place?

Captain WILLIAMS. No, sir. Of course, you understand that Coddington Point is out?

Mr. KELLEY. Is any money carried anywhere for that?

Captain WILLIAMS. No, sir.

Mr. KELLEY. What happens to that?

Secretary DENBY. That remains to be seen.

Mr. KELLEY. You will take care of that by sale or lease?

Secretary DENBY. In case we transfer training activities to port, Coddington Point, which is separate from the Newport station and consists of temporary buildings, could and probably should be abandoned, dismantled, and disposed of in some manner, or should be kept as a possible reserve for the future. At any rate, it should be handled separately. I would like to say in that connection that the inquiry made in the Senate the other day was directed wholly to the cost of training men at Norfolk and at Newport, but that has not been determined yet because there were some errors in the figures. I would like to ask you, Captain, whether or not the figures asked for, to go into that record, have been furnished?

Captain WILLIAMS. I do not think that they have been furnished.

Secretary DENBY. So that must still be regarded as somewhat in the air.

Mr. KELLEY. There might be other considerations beside the question of economy, and it is a matter of administration.

Secretary DENBY. Yes, sir; but economy would probably be the prevailing thing at that point.

Mr. KELLEY. If you needed any money to make any immediate repair to a water main or something of that kind at Coddington Point there is nothing in the language here which would prevent your getting money out of this fund, is there?

Captain WILLIAMS. I do not think so.

Mr. KELLEY. These stations are regarded as one?

Captain WILLIAMS. But I do not think it would be wise. I think it should be established as one thing or another; if Coddington Point is going to fall down, let it fall down.

Mr. KELLEY. But a water main might burst there?

Captain WILLIAMS. If it had any effect on Coasters Harbor Point that would be a different matter, but if these outlying stations are going to fall down let them fall down. It is my understanding that the principle was established in the Naval Committee and that we are not to spend money at Coddington Point or at East Camp.

Secretary DENBY. Of course, we are trying to get rid of East Camp.

Mr. OLIVER. What are you doing with the torpedo boat near Boston? Are you using that now as a warehouse?

Captain WILLIAMS. No, sir; we are not using it now; we are using that as a receiving ship.

Secretary DENBY. That has been given back to the owner.

NAVAL TRAINING STATION, GREAT LAKES, ILL.

Mr. KELLEY. The next is the Naval Training Station, Great Lakes?

tain WILLIAMS. I have here the reply of the commandant at Lakes, which, I think, illustrates the point I was speaking before. For 1923 he is asking for \$360,000. That is estimated in great detail and I am unable to do much more, under the circumstances, than to quote what he says about it.

KELLEY. If it is not too long, but we do not want too much record about it.

tain WILLIAMS. His estimate is \$321,000 for 65,000 men.

KELLEY. Let me see if I can get at it by questions. Does it involve keeping up more than the permanent station?

tain WILLIAMS. I think it involves keeping the whole station except that on the other side of the railroad track.

KELLEY. Why is it not feasible to move back into the permanent buildings and just maintain that much of the unit?

tain WILLIAMS. I feel convinced that it is. At the present time at Great Lakes there are some quite extensive trade schools, but what the future will call forth in that way I am unable to say. The largest item I find in the estimate is for heating, lighting, and as to power plant equipment, distributing mains, tunnels, and its.

KELLEY. That depends very largely upon how much of those buildings you heat?

tain WILLIAMS. Yes, and it depends on how much you allow the laborate system to fall into absolute disrepair.

OLIVER. You see, they have no central heating plant there; they have a number of plants.

tain WILLIAMS. In the winter out there I presume that if the mains and steam mains are not looked after there may be some damage done to them, and the station is not authorized to let this property to deteriorate to that extent without direct authority. I have here a summary which is not very long. Aside from the \$189,980 the largest estimate is \$38,500.

KELLEY. The \$189,000 is for heating?

tain WILLIAMS. Yes, sir; heating, lighting, and repairs to power-plant equipment; distributing mains, tunnels, and conduits.

KELLEY. What was the other item?

tain WILLIAMS. The next largest item is general care, repairs, improvements to buildings, \$38,500.

KELLEY. That does not involve very extensive repairs on a big scale like that; it is just to keep things from falling down?

tain WILLIAMS. Yes, sir. The next large item is for a fire-fighting force, \$17,000.

KELLEY. Do you remember how many boys we could handle before we built these temporary buildings?

tain WILLIAMS. Ten thousand.

KELLEY. I do not believe it was that many; 2,500 is my recollection.

tain WILLIAMS. No; it was more than that. Do you remember the capacity of Great Lakes before the war?

HENKEL. I have not that information; no, sir.

tain WILLIAMS. It is more than that; my impression is 4,500. I heard that at the hearings.

—The capacity was 1,500.

Mr. KELLEY. My memory seems to be pretty clear that 2,500 was the maximum figure before the war. The permanent buildings represent a very fine plant.

Captain WILLIAMS. It is a very fine plant. The whole thing very fine, and it is an enormous place.

Mr. OLIVER. What about your lake wall there? We made appropriation for it, as I understand it, and have you completed the wall?

Captain WILLIAMS. I am unable to say how far that is completed, sir. That is not in the personnel business.

Colonel ROOSEVELT. It is not completed.

Mr. KELLEY. I believe they want something like \$500,000 more than improvement.

Colonel ROOSEVELT. It is contracted for.

Mr. KELLEY. The contract is let and the work is in progress.

Mr. OLIVER. That is necessary to save the old station.

Mr. KELLEY. I think that is one of the special items in Yards and Docks.

Mr. BYRNES. In 1916 your appropriation was only \$80,000. What is the explanation of the increase to the amount here estimated at \$360,000?

Captain WILLIAMS. By far the larger amount of the increase is due to the increase in the size of the station, which took place during war, and also to the heating, lighting, and power plants. That question we asked the commandant out there, and his answer is follows:

This excess is accountable for in many ways. The training station, despite abandonment of the bulk of the war-time enlargement, is still very appreciably larger than it was in 1915, and those parts that were in existence then are some 7 years older, and by June, 1923, will be 8 years older, requiring a larger expenditure for maintenance and upkeep. Materials and labor cost very considerably more to-day than they did in 1915; for comparison in this respect there is shown below a table that gives for each of the principal trades employed in the upkeep of the station the rate of pay per man in 1922 compared with that in 1915.

That explains it in part.

Mr. KELLEY. Suppose we gave you twice as much as you had in 1916 on the theory of going back into the permanent building would that be a fair way to handle it?

Captain WILLIAMS. I am unable to arrive at a conclusion that is entirely satisfactory to me under the circumstances. The officer in charge of the ground makes that statement, and I have been unable to obtain any information which is sufficiently satisfactory to me to make me alter his estimate.

Mr. KELLEY. As I recall, one of the training schools was an aviation school?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. How many boys have you training in aviation there?

Captain WILLIAMS. The number has been cut down now. We have only 62 in aviation.

Secretary DENBY. Aviation and radio.

Captain WILLIAMS. One hundred and thirty-nine machinists' mates, 19 coppersmiths, and 209 radio.

Mr. KELLEY. There is no special need of any aviation training there, you have the Pensacola station?

Captain WILLIAMS. This has been training for aviation mechanics than actual flyers.

KELLEY. You can concentrate that so easily at Pensacola it would not be worth while.

NAVAL TRAINING STATION, HAMPTON ROADS, VA.

The next item is the naval training station at Hampton Roads?

Captain WILLIAMS. There is a training station which, as far as know, will probably be the principal training station on the Atlantic coast. We are asking for \$360,000 this year. Three hundred and seventy-five thousand dollars is what we had for the 1922.

BYRNES. You have reduced it \$15,000?

Captain WILLIAMS. Yes, sir.

BYRNES. What sort of buildings have you there?

Captain WILLIAMS. I think the buildings they are using are more permanent, although they do require some repairs. Those in the Camp are of a different character and they are being disposed rapidly as possible. They are maintained there, having a force of men, a watch of enlisted men and a certain guard that around which could be done if the place were not occupied, there are some complications about turning that property back to the original owners on which I am not competent to speak. As I understand, the owners do not want to take it back.

Secretary DENBY. The original proposition under which that property was taken was that it should be restored in the same condition in which given. We have concrete roads and everything else, \$1,000,000 of buildings on that real estate. The Judge Advocate General is in touch with a number of people who are making different offers of one kind and another to take over the salvaging and make a contribution. All we can do is to go ahead and get the best out of what we can. The last time I told one of the representatives of the people that we would really restore it, that we would tear up the concrete roads and salvage the whole thing and then they would take the land. They do not want that.

BYRNES. Are you returning it with the concrete roads?

Secretary DENBY. What we are trying to do is to get the best we can make for the Navy. In the meantime it has to be decided.

Captain WILLIAMS. We are doing that largely with the enlisted men. One concrete road runs through the center of one fellow's lot and cuts off the corner of another one; that is the trouble.

KELLEY. Captain, how many boys have you at the Hampton training station at the present time?

Captain WILLIAMS. On the 9th of March, 1922, in the various camps we had 1,812 men.

KELLEY. That is all you had down there?

Captain WILLIAMS. Yes, sir.

KELLEY. Next year you might have a few more or a few less, but the upkeep of the buildings and the overhead expenses remain very constant, regardless of the attendance?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. This is a part of the naval operating base and get your heat there?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And your light?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. So I suppose you can shut off the units?

Secretary DENBY. We charge a percentage against the training station.

Mr. KELLEY. If you are not using the training station to capacity you probably are not having to maintain the power for this particular unit?

Secretary DENBY. No; it is central heating and the training station is charged.

Mr. KELLEY. It depends on what they use?

Secretary DENBY. No; they have made a fixed charge of 6 per cent for the training school for the heat, something more than for the light, and something less for the water. I have forgotten it is. Those are the percentages carried on the books of the training schools, percentages of the total cost of the power plant.

Mr. KELLEY. These buildings in which the schools are located temporary buildings, all of them?

Captain WILLIAMS. I think they are temporary, but I think are better buildings than the war-time buildings.

Mr. KELLEY. Can you put in the record a statement showing about how the \$360,000 will be applied, so much for repairs, and so on?

Captain WILLIAMS. Yes, sir.

NOTE.—This is the original estimate. Expenditures will have to be proportionately in order to keep within the estimate of \$360,000.

Maintenance of naval training station, naval operating base, Hampton Roads,

Labor, general care, repairs and upkeep.....	\$102.
Labor, clerical force.....	13.
Truck transportation.....	8.
Cutting grass.....	
Total labor.....	<u>124.</u>
Material for general care, repairs and upkeep.....	206.
Material for maintenance, Machinist's Mates' School.....	15.
Material for maintenance, Electrical School.....	13.
Material for maintenance, Artificer's School.....	10.
School books.....	
Total material.....	<u>246.</u>
Total labor.....	<u>124.</u>
Total labor and material.....	<u>370.</u>

TUESDAY, MARCH 21, 1922.

NAVAL RESERVE FORCE.

STATEMENT OF CAPT. K. N. BENNETT.

KELLEY. The next item is, "Naval Reserve Force." How do you want for that this year?

ain BENNETT. \$200,000; \$50,000 was appropriated last year and spent \$251,000.

KELLEY. What do you want with the increase?

ain BENNETT. We spent more last year than we are asking for this year.

KELLEY. Where did you get the money?

ain BENNETT. It was money which was allotted to use—rental pay which would have gone to these people had they performed duty.

KELLEY. You will have that next year?

ain BENNETT. I am afraid we will not.

KELLEY. Why not?

ain BENNETT. We do not know what we will get in the way of rental pay. We had to disenroll all the Naval Reserve on the 1st of September.

KELLEY. Under the law, if they did not train when called upon to do so, their pay and it went into this fund?

ain BENNETT. It went into that fund.

KELLEY. How much was it?

ain BENNETT. We got at least \$150,000 out of that.

KELLEY. Is there a balance in the fund?

ain WILLIAMS. No, sir. That fund lapsed on the first of the year.

KELLEY. Next year you think you will not get that large amount?

ain BENNETT. I am afraid we will not, because the status of the naval reserve appropriation is very uncertain; it is a general appropriation for the pay of the reserve.

KELLEY. And the whole reserve question is rather in the air?

ain BENNETT. Very much.

KELLEY. The Navy Department has not yet worked out what it wants for a permanent policy?

etary DENBY. It is just about finished.

KELLEY. Subject to the approval of Congress and naturally appropriation will come along through the usual channel, but for the present the thing is hazy and nebulous.

ain BENNETT. This would tend to solidify it a trifle, anyway.

KELLEY. What do you want this money for is to rent armories?

ain BENNETT. Yes, sir; that is a part. There are several other things which come in there.

KELLEY. Do you not think that the States should furnish the armories?

ain BENNETT. The States furnish the armories. It is a little mixed up. This is a nationalized force. It is hardly right for the States, because some are bearing considerable expense.

Mr. KELLEY. If you had a fund like that out of which they could get rent they would be after you all the time to rent their armories!

Captain BENNETT. Maybe it works the other way. The Federal Government is getting, for example, the use of the naval reserve armories in many States which State funds have paid for.

Mr. BYRNES. How many have you in the naval reserve?

Captain BENNETT. About 15,000.

Captain WILLIAMS. Last fall we told them there was no pay them.

Mr. KELLEY. Until you get the legislation.

Captain WILLIAMS. This force is not disbanded. It is simply transferred temporarily out of the class in which they receive pay to the class in which they do not receive pay. Now, if in addition to that little thing you are going to take away everything else they need for administrative purposes, they cease to exist. The reorganizing them is just about to be considered. This is the administrative expense of administering a very large number of men.

Mr. KELLEY. How many are there in the fleet naval reserve?

Captain WILLIAMS. Not so very many.

Colonel ROOSEVELT. I think about 5,000, Governor.

Mr. KELLEY. Men or officers?

Colonel ROOSEVELT. Men.

Mr. KELLEY. How many officers are there?

Colonel ROOSEVELT. Five hundred.

Captain WILLIAMS. In class 1-B there were 1,622 on the 18th March and in class 1-C there were 937, and class 1-D, 1,747. Class 1-B are people who have had four years' service, about 5,000.

Mr. KELLEY. Those are the only ones you are asking an appropriation for during the coming year?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Here are 5,000 men in the fleet reserve and 500 officers; who else are you asking to have paid the coming year?

Secretary DENBY. We absolutely do not know.

Colonel ROOSEVELT. I should like to explain the situation. We have worked on it a great deal lately. It divides itself into two separate problems. The ex-service men who are in the fleet reserve are paid by law.

Mr. KELLEY. That is what I am talking about.

Colonel ROOSEVELT. Yes, sir. That is separate and distinct from what corresponds to the National Guard, which is the Naval Reserve proper, composed of civilians like the National Guard. At a particular time, in view of the fact that we disenrolled all men who had a retainer pay last time on account of the fact that they did not have enough money to pay them because of the obligation entailed by the fleet reserve, we have only a small number, I should say about 15,000, which have been transferred into the other class. As soon as the bill establishes them they will be back again.

Mr. KELLEY. You carry in this bill a certain sum of money which is to pay the 5,000 in the fleet reserve and the 500 officers?

Colonel ROOSEVELT. Yes, sir.

Mr. KELLEY. And the 15,000 men that have not been disenrolled?

Colonel ROOSEVELT. Yes, sir. It is pay now, we have a different proposition.

ELLEY. How many officers go with the 15,000 men?

MR. ROOSEVELT. I can not tell you offhand.

MR. BENNETT. The pay of the reserve is carried in the pay bill.

ELLEY. I know where it is carried. How much?

MR. BENNETT. It has been arbitrarily put at \$4,000,000.

ELLEY. There is the question as to how much money will be by reason of not training. Whatever is forfeited will the appropriation?

MR. ROOSEVELT. No; the new bill—

ELLEY (interposing). I am not talking about the new bill.

MR. DENBY. They are not there; they have gone.

ELLEY. The 5,000 in the fleet reserve are there?

MR. ROOSEVELT. They are not called for training and have not been called for training, so there will be no forfeiture.

ELLEY. We have this option in this case, if we follow your suggestion as you give it now, which is to the effect that there will be no forfeiture in either one of the classes, because there is no forfeiture.

MR. DENBY. There is no pay.

ELLEY. Then, of course, it follows that the \$4,000,000 for which you are asking will go out, too?

MR. ROOSEVELT. No, because, Governor, the fleet reserve is for service and the fleet reserve money is paid on the basis of that pay.

ELLEY. Does that amount to \$4,000,000?

MR. ROOSEVELT. Between \$2,500,000 and \$3,000,000; we do not know.

ELLEY. They get that whether they train or not?

MR. ROOSEVELT. Yes, sir; it is just like a pension.

ELLEY. What about the others?

MR. ROOSEVELT. The others only get it if they train.

ELLEY. And if you do not call them for training they do not get it?

MR. ROOSEVELT. No; but we intend to call them to train, but they would not have any forfeiture in the next bill, as I understand, they only get paid for service.

ELLEY. Captain, in the administration of the existing law relating to the Naval Reserve Force, it is your opinion that the fund will not be augmented by reason of pay being withheld and turned into this fund?

MR. WILLIAMS. During the fiscal year 1923 this fund will not be fully augmented.

ELLEY. This current year you have not been getting anything?

MR. WILLIAMS. Yes; in the neighborhood of \$23,000 will be according to the accounting officers.

ELLEY. Last year we gave you \$150,000 for this purpose.

MR. WILLIAMS. Yes, sir.

ELLEY. How are you getting along this year on \$50,000?

MR. WILLIAMS. I can shorten the answer to the question by saying that practically the entire Naval Reserve force outside of waiting in class 6 until the Naval Reserve is reorganized.

Mr. KELLEY. Why would it not be better to simply give you \$50,000 for this item this year and wait for the reorganization under the bill?

Secretary DENBY. I think that would be all right.

RECEIVING BARRACKS.

Mr. KELLEY. For receiving barracks, you estimate \$100,000.

Captain WILLIAMS. The estimate is \$100,000.

Mr. KELLEY. Is this for the New York barracks?

Captain WILLIAMS. It is for receiving barracks at the following points: Boston, Philadelphia, Hampton Roads, and San Francisco. It is desired to withdraw from the receiving ship at Puget Sound and substitute barracks. It also includes Charleston. This appropriation is subject to the question of the adjustment of policies regarding to shore stations.

Mr. KELLEY. Suppose we cut out the receiving barracks and you go ahead and handle these points just as you have been handling them in the main. You spent a good many millions of dollars receiving barracks last year, and then you just pick out this item here and carry it separately. I never could see any need for it.

Captain WILLIAMS. I would like to go on that basis, with the Secretary's permission. I would like to go further and get a legal opinion on the question of whether we should substitute a phrase in order to make the current appropriation act applicable to some of these items.

Mr. KELLEY. You can put all of the receiving ships and barracks under the same appropriation.

Captain WILLIAMS. Yes, sir.

NAVAL WAR COLLEGE, RHODE ISLAND.

Mr. KELLEY. For the Naval War College, Rhode Island, you have an appropriation of \$90,950, and you are asking the same amount the next fiscal year.

Captain WILLIAMS. That is practically the same thing.

Mr. KELLEY. This is where Admiral Sims is located?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. When does he go on the retired list?

Captain WILLIAMS. On January 24, next year.

NAVAL HOME, PHILADELPHIA.

Mr. KELLEY. The next item is for the Naval Home at Philadelphia. This is a fund that is administered by the Navy, and it does not come for an appropriation out of the Treasury.

Captain WILLIAMS. Yes, sir. I am particularly interested in this fund, and I would like to have you look over this statement. There is one question I would like to call attention to there, and that is the 3 per cent interest rate that they are allowed by law to receive on the money. I do not know why it should be 3 per cent.

Mr. KELLEY. I suppose that is the way the law was written. Do you think they should have more?

MAIN WILLIAMS. I think so.

KELLEY. What are these changes you have made in the text of the bill?

HENKEL. There is one additional baker at \$720, and one helper at \$720 is changed to a helper pipe fitter at \$975, one additional waitress at \$360; increase of \$315 for one woodworker helper; five laborers at \$540 each, additional, total, \$1,620; elimination of chauffeur at \$840; increase of \$400 for one stenographer.

KELLEY. I think that will be subject to a point of order. Why leave these places just as they have been?

BYRNES. You do not have a baker now, and you would be creating a new position.

HENKEL. The recommendation for the additional position of baker at \$720 per annum is as follows: The expenditure in 1921 for bread amounted to \$2,939.69, and it is estimated that the cost of buying bread at the institution, including the pay of a baker, would be \$2,280.96, indicating a saving of \$658.73 for bread alone.

BYRNES. You have no baker there now?

HENKEL. We have one baker.

BYRNES. Where is his salary carried?

HENKEL. It is carried here.

BYRNES. It must be carried as an assistant cook.

KELLEY. You want 11 waitresses instead of 10, and you want laborers at \$540 each instead of 5. Why do you want all of these new people here? Is the population increasing?

WILLIAMS. I think there has been a considerable improvement made up there lately. The place was running down, and we had an energetic man in charge of it.

KELLEY. This is a readjustment of your salary list and effects an increase of about \$3,000 in the entire appropriation?

WILLIAMS. Yes, sir.

KELLEY. This appropriation is \$47,280 for the present fiscal year, and you are asking \$50,110 for next year.

BYRNES. What is the objection to leaving the amount at \$47,280 and then rearranging these positions?

OLIVER. As I understand it, you occupy toward this home the position of trustees, and the trustees feel that they have sufficient authority to justify this expenditure without taking any part of the appropriation?

WILLIAMS. It is something like that; yes, sir.

BYRNES. The balance, if any, is turned into the Interior Department or into a pension fund?

WILLIAMS. I do not know how much balance there is. I think that question of 3 per cent is a matter that will have to be taken up at some time.

FRENCH. How many are in the home now?

WILLIAMS. I will insert that in the record.

FRENCH. I would be glad if you would supply that information before the past two or three years.

WILLIAMS. I will supply that for the record.

BYRNES. This fund represents 3 per cent upon an amount between fourteen and fifteen million dollars. Taking the lowest figure, it would make \$420,000. When they put that amount to the credit of the institution, they deduct from it the appropriation which is

made here. If this appropriation of \$158,000 is deducted, it is a considerable balance over and above this cost, but, as I have said, the fund represents 3 per cent on more than \$14,000,000.

Mr. KELLEY. There is a fund of \$14,000,000 to the credit of the home, on which the Government pays 3 per cent interest. Three per cent on that would make \$420,000, and when we deduct from that amount appropriated here, the balance goes to the pension fund.

Captain WILLIAMS. Yes, sir.

NUMBER OF INMATES.

Mr. KELLEY. I wish you would put in the record a little statement showing the number of people in the institution as compared with the number in previous years. Your statement should also show whether the inmates there now are on an average older and require more than those present in previous years. Of course, the expense of maintaining the institution would be a little higher.

Captain WILLIAMS. I will supply that for the record.

Number on roll, June 30, 1920.....
Admissions during the year.....
Readmissions.....
Died.....
Discharges.....
Remaining on roll, July 1, 1921.....

Veterans of the various wars, on the rolls at the close of the year, number as follows:

Civil War.....
Indian War.....
Spanish War.....
World War.....
Philippine Insurrection.....
Panama Expedition.....
Nonveterans.....

The following statement gives the total service in the Navy and Marine Corps of the beneficiaries on the rolls:

Less than 5 years.....
5 years to 9 years.....
10 years to 14 years.....
15 years to 19 years.....
20 years to 24 years.....
Over 25 years.....

Total.....

The ages of the beneficiaries are as follows:

Years:	Number.	Years:	Number.	Years:	Number.	Years:	Number.
33.....	1	50.....	1	64.....	2	76.....	1
34.....	1	52.....	12	65.....	3	77.....	1
35.....	1	53.....	3	66.....	3	78.....	1
36.....	1	54.....	4	67.....	8	79.....	1
37.....	2	55.....	4	68.....	2	80.....	1
40.....	1	56.....	3	69.....	6	81.....	1
42.....	3	57.....	8	70.....	1	82.....	1
43.....	3	58.....	2	71.....	8	83.....	1
45.....	2	59.....	2	72.....	3	84.....	1
46.....	1	60.....	7	73.....	5	85.....	1
47.....	1	61.....	5	74.....	8	86.....	1
48.....	1	62.....	6	75.....	8	87.....	1
49.....	2	63.....	4				

It will be noted from the foregoing that the ages vary from 33 years to 87 years, the average being 66.6 years.

tain WILLIAMS. This has been training for aviation mechanics than actual flyers.

KELLEY. You can concentrate that so easily at Pensacola it would not be worth while.

NAVAL TRAINING STATION, HAMPTON ROADS, VA.

Next item is the naval training station at Hampton Roads?

tain WILLIAMS. There is a training station which, as far as now, will probably be the principal training station on the Atlantic coast. We are asking for \$360,000 this year. Three hundred and seventy-five thousand dollars is what we had for the year 1922.

BYRNES. You have reduced it \$15,000?

tain WILLIAMS. Yes, sir.

BYRNES. What sort of buildings have you there?

tain WILLIAMS. I think the buildings they are using are more permanent, although they do require some repairs. Those in the camp are of a different character and they are being disposed of rapidly as possible. They are maintained there, having a force of men, a watch of enlisted men and a certain guard that is around which could be done if the place were not occupied, there are some complications about turning that property back to the original owners on which I am not competent to speak. As I understand, the owners do not want to take it back.

Secretary DENBY. The original proposition under which that property was taken was that it should be restored in the same condition in which given. We have concrete roads and everything else, \$1,000,000 of buildings on that real estate. The Judge Advocate General is in touch with a number of people who are making different offers of one kind and another to take over the salvaging and make restoration. All we can do is to go ahead and get the best out of that we can. The last time I told one of the representatives to the people that we would really restore it, that we would tear up the concrete roads and salvage the whole thing and then they would take the land. They do not want that.

BYRNES. Are you returning it with the concrete roads?

Secretary DENBY. What we are trying to do is to get the best we can make for the Navy. In the meantime it has to be maintained.

tain WILLIAMS. We are doing that largely with the enlisted

The concrete road runs through the center of one fellow's lot cuts off the corner of another one; that is the trouble.

KELLEY. Captain, how many boys have you at the Hampton training station at the present time?

tain WILLIAMS. On the 9th of March, 1922, in the various camps we had 1,812 men.

KELLEY. That is all you had down there?

tain WILLIAMS. Yes, sir.

KELLEY. Next year you might have a few more or a few less, the upkeep of the buildings and the overhead expenses remain constant, regardless of the attendance?

tain WILLIAMS. Yes, sir.

justly so, to every part of the country. The records of not dead yet, and they are dying slowly, and we still have we have to look after from the Civil War. If there is to be any reduction in this clerical work, the first step would be to get rid of those outside assistants that we have. We are confronted at the present time with a sudden order to get to the work of the bonus business somewhere. You can not take any sum of money and going to be distributed properly without experienced, careful men to lead the newcomers. If the bonus carriers have asked, or \$500,000, for clerical assistance, they will get it and will want them almost immediately.

You can not shift that many clerks out of the service to go into the complicated business of Government unless you take these men that you are appointing as their leaders. If you do that routine work on the books, let the records get behindhand, the cases will go to the

al COONTZ. Yes, sir; and it was impossible to make a reduction last year in the other departments you took off 20 per cent, year we hoped to make a reduction of 5 per cent, but we do that in the Bureau of Navigation.

ALLEY. You have met the State demands already, have you

1 WILLIAMS. We used extra clerks for that.

ALLEY. But they are finished?

1 WILLIAMS. Yes, sir; they were finished in record time. Our business is confronting us, and, while it will carry its appropriation, we will have to mix in new clerks and keep them in order to keep the work going. Then, there are the allowances to these Naval Reserve people, and I do not know how many months behind we are on that. That is partly due to the lack of men in the Bureau of Navigation. When you discharge men after the war, their records remain active for some years.

ALLEY. This is quite a while after the war. The war has been five years now.

1 WILLIAMS. But the number of active records is still very large. A man's record never becomes absolutely dead as long as he is active.

ALLEY. Do you answer all of your letters?

1 WILLIAMS. We try to, but we do not have much luck. We write letters to you gentlemen through inefficient clerks sometimes, and sometimes the answer, instead of being civil, is pretty curt, is

ALLEY. No; I have always had nice letters from your bureau.

1 WILLIAMS. You cut us so hard before that there is not much to cut.

ALLEY. What is the average pay of these clerks?

1 WILLIAMS. About \$1,200.

ALLEY. Have you figured the bonus of \$240 in this?

1 WILLIAMS. No, sir.

TUESDAY, MARCH 21, 1922.

RECREATION FOR ENLISTED MEN.

MENTS OF COMMANDER CHARLES R. TRAIN, IN CHARGE OF THE 1ST DIVISION, BUREAU OF NAVIGATION, AND LIEUT. COMMANDER R. R. M. EMMET.

ALLEY. This year you had \$800,000. What is your estimate for next year?

under TRAIN. \$455,000 on 65,000 men.

ALLEY. That is just the proportion of what you had?

under TRAIN. The Budget cut our request of \$800,000 to \$700,000 and \$700,000 for 100,000 men, we took naturally the proportional reduction.

ALLEY. What would be the amount if you based your proposition on \$800,000?

Commander TRAIN. Roughly, \$400,000.

Mr. KELLEY. That is, if you had \$800,000 for 100,000 men would have to have how much for 65,000 men?

Commander TRAIN. \$520,000.

Mr. KELLEY. What was the total fund available for this purpose last year?

Commander TRAIN. We had \$800,000.

SHIPS STORES PROFITS.

Mr. KELLEY. Then, you had some other sources of income?

Commander TRAIN. We had the source from the ships' profits, and this year, so far, it has reached \$60,000. That is a transaction between the Bureau of Supplies and Accounts and Bureau of Navigation. The ships pay for the moving pictures for their ship's stores profit, certain ships do, and we are credited with that amount by the Bureau of Supplies and Accounts, and from those funds we buy other motion pictures.

Mr. KELLEY. What was the amount secured from the profits from the stores? This is 1921 and I suppose you have complete figures for that year?

Commander TRAIN. It was in round numbers \$70,000—seven odd thousand dollars.

Mr. KELLEY. Were there any other sources besides that from which you obtained funds?

Commander TRAIN. Yes, sir; we have had, as you know, furnished over by certain welfare societies, which have not yet been expended. We have about \$35,000 left in that fund.

Mr. KELLEY. Do you remember how much you used out of that fund last year?

Commander TRAIN. I can not tell you; not more than \$10,000 or \$12,000.

Mr. KELLEY. Would that represent all that you had with \$800,000 appropriation?

Commander TRAIN. The American Library Association of a little less than \$5,000, and the Y. M. C. A. additional of \$10,000, which was given for certain educational work.

Mr. FRENCH. The Y. M. C. A. is in addition to the welfare societies?

Commander TRAIN. Yes, sir.

Mr. FRENCH. How much is that?

Commander TRAIN. About \$10,000.

Mr. KELLEY. Is that all?

Commander TRAIN. I think that is about all, sir.

Commander EMMETT. And \$65,000, Supplies and Accounts. That is to be expended for supplies and accounts and nothing else.

Mr. KELLEY. But it would save your obligating this fund for that purpose if you did not have it?

Commander EMMETT. Yes, sir.

Mr. KELLEY. So it all comes together. That makes for \$960,300?

Commander TRAIN. Roughly, I would say that is correct.

Mr. KELLEY. How will that compare with your expenditures last year?

mander TRAIN. We do not know what we will get from A. to begin with. They gave us a percentage of their appropriation. We figured out \$65,000 was not the correct percentage on the records in the past, but it was not disputed in the 1 of Navigation.

KELLEY. It is my recollection that during the war these profits dropped off almost entirely?

mander EMMETT. The ships' profits increased during the 1 account of the transports taking the soldiers over and a many ships made a lot of profit. Since the war the profits ropped off.

KELLEY. Do you know what the balance is in the Treasury credit of this fund?

mander TRAIN. No, sir; it varies from month to month.

KELLEY. How much did you have in the fund on the 1st of

mander TRAIN. I think we have about \$60,000 now to our

mander EMMETT. We got a credit of \$65,000 on the 1st of last which we have used to purchase athletic material from time e to make up for the material that we send out to the ships.

KELLEY. Was the \$65,000 allotted to you by the Secretary?

mander EMMETT. It was allowed us by Supplies and Accounts of their having to pay the ship allotments. A destroyer used \$200 a year.

KELLEY. Let us keep to the financial end. Let us take up the t year. You have an appropriation of \$800,000?

mander EMMETT. Yes, sir.

KELLEY. How much did you estimate you would spend from p's stores this year?

mander TRAIN. The ship's stores does not come out of that.

KELLEY. It is additional?

mander TRAIN. Yes, sir.

KELLEY. How much will that be?

mander TRAIN. I should say, roughly, \$75,000.

KELLEY. You will have some welfare money this year?

mander TRAIN. Yes, sir.

KELLEY. How much have you spent from that fund this year?

mander TRAIN. About \$16,000.

KELLEY. How much will you spend during the balance of the ut of the welfare fund?

mander TRAIN. We will spend, I should say, \$10,000.

KELLEY. \$26,000 altogether?

mander TRAIN. That is the welfare fund only.

KELLEY. Will you have the American Library Association his year?

mander TRAIN. Yes, sir.

KELLEY. How much?

mander TRAIN. We will spend \$3,400—all of it. The library nstead of \$3,400, will be \$5,000.

KELLEY. And the Supplies and Accounts, \$65,000, the same ore?

mander TRAIN. Yes, sir; that is an estimate.

Mr. KELLEY. They gave you money last year and give you the same this year?

Commander TRAIN. Yes, sir.

Commander EMMETT. They say that they will give of the Supplies and Accounts maintenance. If maintenance will get \$32,000, and if it is one-third we will get one-third.

Mr. KELLEY. That would be \$977,300; that is, for 1922 rent year. This coming year, how much do you expect to the stores?

Commander EMMETT. About \$75,000.

Mr. KELLEY. Have you not quite a balance to your fund?

Commander EMMETT. No, sir; we simply get it.

Mr. KELLEY. The information which came to me November 9, 1921, was that there was a Treasury ships' stores profits of \$328,985.54.

Commander TRAIN. But we only get the exact amount the ships pay for the pictures out of the ships' stores profit.

Mr. KELLEY. Does this fund pile up in the Treasury?

Commander TRAIN. We only get a small portion of it.

Mr. KELLEY. Where does the rest go?

Commander TRAIN. I do not know where it goes. The Accounts take charge of the balance. Our small fund is entirely on motion pictures.

Commander EMMETT. For instance, the *Pennsylvania* send men on board and they take our motion pictures and they pay us 30 cents per man or 1 cent a cent. That \$300. That \$300 goes to the paymaster to the credit of the Bureau of Navigation and in turn to the Bureau of Supplies and Accounts. They simply send the *Pennsylvania* to the Bureau of Navigation, and they are informed of the transaction. It is reported that we usually allot that to the motion-picture exchange on current bills.

Mr. KELLEY. You do not treat the profits from a separate proposition; it all goes into one fund, against that for your needs?

Commander EMMETT. We have possibly 100 or 75 of the motion pictures are furnished, and we get the pictures through the Bureau of Navigation. We send money to the motion-picture exchange for our allotment by the amount we expect to receive from the stores profit.

Mr. KELLEY. Just now let us consider only this. I understand, you get from this fund something.

Commander EMMETT. I think it would be for the Navy of 65,000 men.

Mr. KELLEY. Call it \$75,000. How much will it be for welfare societies?

Commander EMMETT. I do not know that we have not any assurance.

Commander TRAIN. We will have a balance.

Mr. KELLEY. How much?

mander TRAIN. A balance on the 1st of July of about \$25,000.

KELLEY. You can use that all of next year?

mander TRAIN. Yes, sir.

KELLEY. Will you get anything from the Library Association?

mander TRAIN. No, sir.

KELLEY. Or from the Y. M. C. A.?

mander TRAIN. No, sir.

KELLEY. From Supplies and Accounts?

mander TRAIN. We will get a percentage. Whether the C. A. or the American Library Association will give us anything we don't know.

KELLEY. That is problematical?

mander TRAIN. Always.

KELLEY. They have for the last two or three years and they gain?

mander TRAIN. Yes, sir.

KELLEY. That would give you \$660,000 for the coming year?

mander TRAIN. Yes, sir.

KELLEY. And you figure that will be about what you have getting.

mander TRAIN. Yes, sir.

KELLEY. That will be 65 per cent, anyway, of the amount paid last year?

mander TRAIN. Yes, sir.

ion of estimates, morale division, Bureau of Navigation, 1923, based on a total budget of \$455,000 for 65,000 enlisted men.

pictures.....	\$88,725.00	Religion.....	\$1,649.00
ubs.....	11,375.00	Contingent.....	1,706.25
rs.....	17,062.50	Allotments.....	244,619.75
ooks.....	8,531.25	Education.....	29,575.00
tions.....	6,256.25	Libraries.....	22,750.00
ygine.....	9,100.00		
stration.....	13,650.00	Total.....	455,000.00

TUESDAY, MARCH 21, 1922.

GUNNERY AND ENGINEERING EXERCISES.

STATEMENT OF CAPT. WILLIAM C. WATTS.

tain WATTS. The estimate was originally \$95,000 for this year, compared to an appropriation of \$100,000 for last year. Our appropriation is so little affected by the actual size of the enlisted men of the Navy that I have been unable to find any means by which I could suggest any reduction beyond the reduction already made to \$95,000.

KELLEY. This is for gunnery prizes, trophies, and badges in order to improve the interest of the men in efficient shooting and all sort of thing?

tain WATTS. Yes, sir. About one-half of the appropriation is for the first paragraph, "Prizes, trophies, and badges, etc."

KELLEY. How much is that?

Captain WATTS. Approximately \$46,000, and that, of unaffected by anything except the number of combatant operative status.

Mr. KELLEY. For the purpose of printing, recording, compiling, and publishing the rules and results, what mate?

Captain WATTS. About \$30,000.

Mr. KELLEY. What sort of printing is this?

Captain WATTS. That covers the preparation of the gunnery exercises, rules for engineering performances, and reports of the competitions. That figure is more or less because that work must be done if the competitions go on a lesser number of men are employed, or not, practically the number of ships of the combatant class, except battleships, be continued under the operating force plan for the 65,000 Navy. There is practically no change among the ships prize money is paid, except in the battleship class.

Mr. KELLEY. For the establishment and maintenance of galleries, target houses, targets, and ranges how much estimate?

Captain WATTS. We have been obliged to reduce. Our usual expenditure has been about \$25,000. We had to close several ranges and to so greatly reduce for the upkeep of others that we are just about on the verge of discontinuance now.

Mr. KELLEY. What ranges have you closed?

Captain WATTS. We discontinued the allotments for Philadelphia and Great Lakes, and have entirely discontinued the range at Maguinao, near Olongapo, P. I.

Mr. KELLEY. What was the first one you mentioned?

Captain WATTS. Philadelphia. There is person stations that we would like to have the opportunity of firing.

Mr. KELLEY. You will have the men on ships; they can have better training?

Captain WATTS. No, sir; we can not give them arms training on the ships.

Mr. KELLEY. You can at Guantanamo?

Captain WATTS. Yes, sir.

Mr. KELLEY. You have a good range down at Norfolk?

Captain WATTS. No, sir.

Mr. KELLEY. I thought there was one at a few Hampton Roads.

Captain WATTS. We had one there during the war, but it has been discontinued.

Mr. KELLEY. You have discontinued the range at Philadelphia?

Captain WATTS. Yes, sir.

Mr. KELLEY. You have turned that back to Virginia?

Captain WATTS. Yes, sir.

Mr. KELLEY. For hiring established ranges and equipment to and from ranges, you estimate?

Captain WATTS. We estimate \$4,000 for that.

Mr. KELLEY. That makes up the \$95,000?

Captain WATTS. Yes, sir.

- KELLEY. That is all that the Bureau of the Budget estimated his purpose?

ptain WATTS. Yes, sir. There is an additional clause requested inclusion there to meet an immediate and unforeseen situation, which will go far to make up any savings that may result from a number of battleships competing.

- KELLEY. "Including the services of one technical photographer." Where is he employed?

ptain WATTS. In the laboratory. He is needed for the photographic work in plotting the results of target practice. Many of our are based upon photographic records.

- KELLEY. He should be in the civilian force of the department. tain WATTS. Yes, sir.

- KELLEY. And not under this item.

ptain WATTS. That is the way it was provided for. There is another office on a similar basis.

- KELLEY. We can put it in the civilian part of the bill.

ptain WATTS. One other office has a similar situation, and it was that reason that the Budget Officer directed that I include it this. This is a technical man.

- KELLEY. You have somebody doing that work now?

ptain WATTS. No, sir; not at present.

- KELLEY. This is a new position.

ptain WATTS. No, sir; the same services have been obtained at various times in the past. We have accomplished it by either farming the work or by having it done in offices that have similar employees. Some of the time it was being done at the navy yard, and sometimes it was being done by enlisted men.

- KELLEY. You want to create this one position?

ptain WATTS. Yes, sir; it is an absolute continuing necessity. The work is now of a continuous character.

- KELLEY. We will put it over in the civilian list. I suppose all photographers are all more or less specialists?

ptain WATTS. Yes, sir. This is different only to the extent that they are to be trained in making and analyzing pictures of the splash tests.

- KELLEY. This photographer has special training in the making of that sort of pictures?

ptain WATTS. Yes, sir; in the making and analysis of target practice pictures.

- KELLEY. You can carry this work on without creating this new place, but you would rather have it done this way?

ptain WATTS. We can not do it without some expedient, which I do not now suggest itself. There is nobody doing the work now, and we are in a very desperate situation. The Secretary is aware of the need for our relief, but no means have been found to afford it yet.

THURSDAY,

Ad

BUREAU OF YARDS AND DOCKS.

**STATEMENTS OF REAR ADMIRAL L. E. GREGORY,
TENANT COMMANDER WARREN, LIEUTENANT J.
ROUZER, AND MR. SMITH.**

NAVY YARD, PORTSMOUTH, N. H.

Mr. KELLEY. Gentlemen, we have with us this morning Mr. Gregory, Chief of the Bureau of Yards and Docks, and

CONSTRUCTION OF BRIDGE.

On page 113 of this draft of the bill is the first item for Portsmouth, New Hampshire: To aid in constructing city of Portsmouth, New Hampshire, Kittery, Me., to complete, \$250,000." Please state the purpose of that bridge.

Admiral GREGORY. That bridge is being built in with the States of Maine and New Hampshire, with the United States Government, each to pay one-third cost. The foundations of this bridge are now completed. The superstructure is now underway on the bridge. The appropriation to date will probably be insufficient to meet the cost that will be incurred up to the end of the current fiscal year. It is expected that the entire bridge structure will be completed by December, next. It is therefore proposed to appropriate of the balance required to complete, the entire appropriation, \$250,000.

Mr. KELLEY. Did we agree to pay one-third, not a certain sum?

Admiral GREGORY. That, I think, is the understanding.

COST OF BRIDGE.

Mr. KELLEY. How much was the cost of the bridge? In the appropriation bill for the fiscal year 1921 there appears

To aid in construction of bridge connecting city of Portsmouth, N. H., with Kittery, Me., \$500,000, of which \$250,000 is hereby appropriated. That an equal amount shall be expended concurrently for the construction of the bridge by the States of Maine and New Hampshire, the location to be determined by the Navy for convenient access to the Portsmouth Navy Yard.

We agreed to put up \$500,000, I see.

Admiral GREGORY. Yes, sir.

Mr. KELLEY. We have already appropriated \$250,000?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. It will all be needed this coming year?

Admiral GREGORY. It will all be needed by the end of the year.

Mr. KELLEY. And each of the States has contributed

Admiral GREGORY. Yes, sir. I understand that the contract will come inside of the appropriation of the bill.

Mr. KELLEY. How much inside?

miral GREGORY. As nearly as I can figure, they have now obliterated everything except a few thousand dollars, but there will, perhaps be some contingencies that always have to be met in such a nature as that, so I do not think it is wise to reduce that any, and if money is left over at the end, the money will be turned back.

. KELLEY. There may be a few thousand dollars?

miral GREGORY. Yes, sir; I do not think it is wise to make any action.

NAVY YARD, NEW YORK, N. Y.

SPRINKLER SYSTEM.

. KELLEY. The next item is, "Navy yard, New York, N. Y.," you want a sprinkler system in mold loft, \$18,000? Can not get along without any more improvements in the yards on the Atlantic this year?

miral GREGORY. It is probably true that almost nothing is needed for the eastern yards this year.

. KELLEY. This is fire protection?

miral GREGORY. Yes, sir; it is simply a question of whether it is desirable, in view of the fact that we have a vast amount of inflammable materials stored in the mold loft, to omit the sprinkler system; simply a protective measure.

. KELLEY. How long has the building stood there; is it a new or old building?

miral GREGORY. This building was completed in 1919.

There are stored in the building also patterns and framing for ships that have recently been built, and they have decided that although they think it desirable to have the sprinkler system over the entire mold loft, this covers only about one-half, that being the portion that they think is absolutely necessary.

. KELLEY. It has been used for a mold loft right along?

miral GREGORY. I understand it has.

. KELLEY. This is fire protection and ought to take care of other things that are stored there?

miral GREGORY. They being of great value and stored in this building, it is considered proper to have fire protection.

NAVY YARD, PHILADELPHIA, PA.

DREDGING, ETC.

. KELLEY. The next item is, "Navy yard, Philadelphia, Pa.," amounting, \$75,000. Where is that dredging?

miral GREGORY. That, I understand, is routine, and usually has been done there from time to time in order to maintain the depth necessary to get the ships in and out.

. KELLEY. Is that dredging the Schuylkill River so as to get the ships back basin?

miral GREGORY. Into the Schuylkill and into the reserve basin, and thence to the reserve basin.

. KELLEY. My recollection is that you get into the basin through the Schuylkill River?

Admiral GREGORY. Yes, sir. During the last have not been sufficient available funds to keep that dredged down to the amount actually necessary.

Mr. KELLEY. When was the last time we appropriated there?

Admiral GREGORY. Year before last, June 4, 1920. appropriated for general dredging, however no dredging done in the reserve basin since 1919.

Mr. KELLEY. Is dredging always carried as a special appropriation for all the yards?

Admiral GREGORY. I think in nearly all cases it is.

Mr. KELLEY. Could you do this out of the lump sum?

Admiral GREGORY. It could be, if we had enough is seldom permissible to do anything out of the lump sum reason that it is too small with which to do it and you to get a big sum of money, because it involves the plant that is so expensive that you can not attempt any without spending money in much larger amounts than the lump sum appropriation will permit.

Mr. KELLEY. Are you doing any dredging this year?

Admiral GREGORY. There is no dredging that is done at Philadelphia this year. This dredging yard at present to be necessary in order to do the use of the reserve basin may be even greater than we are tying up so many more ships.

Mr. KELLEY. Is it the idea to enlarge the basin?

Admiral GREGORY. No, sir; simply to provide which has been accumulating and which accumulates.

PILE CAPS, WAYS NOS. 2 AND 3.

Mr. KELLEY. "Pile caps, ways Nos. 2 and 3, about that?"

Admiral GREGORY. Those ways are the ways under construction two of the battle cruisers, upon which have been stopped.

Mr. KELLEY. You will not need that?

Admiral GREGORY. The only point is whether they be required. They can not even go ahead and construct the battle cruisers unless we repair the ways.

Mr. KELLEY. If needed, we can provide for that.

Admiral GREGORY. Except you might need them.

Mr. KELLEY. You would not need them then?

Admiral GREGORY. This year, I would not think so.

NAVY YARD, NORFOLK, VA.

TO CONTINUE WATER-FRONT IMPROVEMENTS.

Mr. KELLEY. The next item is "Navy yard, Norfolk, water-front improvements, to continue, \$75,000." Is that money down there?

Admiral GREGORY. That will not finish the work at a good place to stop. The water-front improvement which should be made.

state of completion, but the money gave out at a point where did not have a good stopping place. This is simply to piece out a portion and then it will leave it so it can be protected.

KELLEY. When we gave you \$250,000 last year we did not quite enough?

miral GREGORY. Not quite enough.

KELLEY. This brings the improvement down to the slip?

miral GREGORY. To the pier.

KELLEY. This will complete and make effective what you have heretofore down there?

miral GREGORY. That is the idea; yes, sir.

NAVY YARD, CHARLESTON, S. C.

TO CONTINUE DREDGING.

KELLEY. The next item is "Navy yard, Charleston, S. C., ing. to continue, \$36,000."

miral GREGORY. That is a yard where dredging has to be done annually every year if the intention is to keep the bottom down to a level as to use the yard.

KELLEY. In front of the dry dock, as I remember it?

miral GREGORY. The dry dock and piers.

KELLEY. You have to keep that dredged out?

miral GREGORY. Yes, sir.

KELLEY. This stuff comes down the Cooper River to right in of the dry dock?

miral GREGORY. Yes, sir.

KELLEY. You had submitted an estimate of \$40,000 less than ear?

onel ROOSEVELT. Yes, sir.

miral GREGORY. Yes, sir.

NAVAL STATION, KEY WEST, FLA.

DEVELOPMENT AND COMPLETION OF SUBMARINE BASE.

KELLEY. What about the situation at Key West? There has not been any estimate submitted, but I want to know about the situation there?

miral GREGORY. That work has been contracted for and it is expected that it will be completed during the present calendar year.

They have been building a breakwater, and behind that breakwater a number of piers alongside of which they will have a room for tying up quite a fleet of submarines. The former chief of the Bureau of Yards and Docks, Admiral Parks, was down on a tour recently and submitted a report on the conditions in the yard. He finds that the work has been progressing fairly satisfactorily.

KELLEY. What are they doing?

miral GREGORY. At the present time they are putting riprap on the inside of the breakwater to protect it from the further wash of the sea.

KELLEY. What is riprap?

miral GREGORY. Broken stone; broken corral is in that case.

Mr. KELLEY. The covering that they expected to success?

Admiral GREGORY. They tried marl, in fact, that is on at the present time, but it is felt that the marl is not location, it did not meet the expected results and it was good as the marl they had in other portions of Florida.

Mr. KELLEY. This will hold the improvement from so that we will not have to put in any more money?

Admiral GREGORY. Yes, sir; it is hoped that it will not be to ask for any more money. The work is going ahead report very good progress.

NAVAL STATION, GUANTANAMO, CUBA.

ADDITIONAL DISTILLING FACILITIES.

Mr. KELLEY. Have you put in the additional distilling Guantanamo?

Admiral GREGORY. They have not been installed. They have been working up the plans and specifications. An award has been made, but it is expected to be made at an early date.

NAVY YARD, MARE ISLAND, CALIF.

MAINTENANCE OF DIKES.

Mr. KELLEY. The next item is "Navy yard, Mare Island, amounting to \$2,650,000.

Colonel ROOSEVELT. It is the teredo, which has the piles.

Mr. KELLEY. Mr. Curry, a Member of the House is present, and I would be glad, and I think it would be glad, to have Mr. Curry make a general statement of the situation at Mare Island.

THURSDAY, MARCH 16,

STATEMENTS OF HON. CHARLES F. CURRY, A MEMBER IN CONGRESS FROM THE STATE OF CALIF., AND DR. J. J. HOGAN.

Mr. CURRY. The Chief of the Bureau will explain this situation from the technical side than I can.

Mr. KELLEY. He will do that.

PRESENT CONDITION OF DIKES.

Mr. CURRY. You will remember that a year ago I was on the subcommittee and told it that if these dikes were in proper shape this condition would exist by probably take ten times as much money to

it would if they were put in shape then. In your appropriation ar ago for the maintenance of yards and docks you intended to ide enough money to take care of this proposition.

r. KELLEY. In the lump sum?

r. CURRY. Yes, and Admiral Parks, at my request, came before committee a second time and told you he would do this, as you remember. After that Admiral Parks was taken sick and the r was not done. One thousand feet or more of the dike has gone and it will all go unless it is replaced in the near future. The lition of the dikes is caused by four dry seasons, practically no at all falling in that part of California. The result was that the and the channel, as well as the Napa River, instead of being fresh r was salt water, and the teredo, which can not live in fresh r, went up through the channel and destroyed the piling. It is likely there will be another four dry years in California for the 50 years and maybe never. The teredo can not live in fresh r; it lives in salt water. This dike piling was put in 19 years and it was expected to last about 15 years, but notwithstanding teredo it lasted two years longer than it was originally estimated ust by the Bureau of Yards and Docks, and it would probably e lasted six or seven years longer if the teredo had not gotten in e. It will cost two million and a quarter dollars to replace these s and put them in shape so as to make them absolutely safe, unless they are replaced about \$40,000,000 worth of Federal pment will be in jeopardy.

ne appropriation has the approval of the commandant at the l, Admiral McKean, of Captain Cox, the chief engineer of the fth naval district, of the Bureau of Yards and Docks, the Secre- of the Navy, the Assistant Secretary of the Navy, and the get Bureau.

expected that this item would be included in the original budget, it was recommended by the Bureau of Yards and Docks, but so much as this. However, the Budget Bureau cut the approp- tion down to such a low point that it might as well not be approp- ted, because it would be like throwing money away.

am sorry the condition is as it is, but it is exactly as I told you ould be a year ago unless these dikes were repaired, and if they not repaired now it will probably cost twice as much to replace a.

PINOLE SHOALS—MARE ISLAND CHANNEL.

e have a 35-foot project below low water, being cared for by Army Engineers, through the Pinole Shoals, the Mare Island nel, and the turning basin.

r. KELLEY. You mean they are dredging a channel up to Mare ad which will have 35 feet of water?

r. CURRY. It was 35 feet before these dikes went out, as well as ough the Pinole Shoals. While these dikes were in, the depth was g maintained, and it had really gone to a 36-foot depth below water through Pinole Shoals. The Chief of Engineers told me the information he had from the coast showed that they could ntain the Pinole Shoals depth without using a dredger over two ks in a year.

Mr. KELLEY. Is that the difficult point in this channel, from Francisco up to the yard and through the Pinole Shoals?

Mr. CURRY. The difficult points are the Pinole Shoals and channel.

Mr. KELLEY. How deep is the channel?

Mr. CURRY. It was 35 feet before the dike went out. Of course there is another project for using the point of the island, at which place there is a minimum depth of 50 feet, but if these dikes maintained two weeks of work a year with a dredger will maintain a 35-foot depth all the way up, but if these dikes are not replaced soon the channel will shoal up materially. In some points it has shoaled up to 26 feet now.

Mr. KELLEY. These dikes prevent the silt from coming down to what place?

Mr. CURRY. Here is a photograph of the dikes and these are the dikes [indicating]. There is a 6-foot tide and the water runs back and forth. The flow of the river and the action of the tide fills between these dikes.

Mr. KELLEY. Which way does the current flow?

Mr. CURRY. It flows this way and then comes back in through [indicating]. The mud back there has resulted in making a great deal of land.

Mr. KELLEY. With these dikes being out the mud fills in the channel?

Mr. CURRY. Yes; it starts in from here [indicating].

Mr. KELLEY. Is this the way down to San Francisco [indicating]?

Mr. CURRY. No; this is the way down to San Francisco [indicating].

Mr. KELLEY. How do you mean?

Mr. CURRY. Down this way [indicating], and here is Mare Island and Napa River [indicating].

Mr. KELLEY. Where does the mud come from?

Mr. CURRY. It is washed back from the hills.

Mr. KELLEY. It does not come from any stream but it comes with the rains from the hills into this place here [indicating]?

Mr. CURRY. Yes, sir; it comes down here [indicating] and instead of going out, when the tide comes back it is put back in here [indicating].

Mr. KELLEY. By reason of the return of the tide?

Mr. CURRY. Yes, sir.

Mr. KELLEY. You say a 35-foot channel can be maintained to San Francisco all the way up to the yard by two weeks' of dredging a year?

Mr. CURRY. Yes, sir.

Mr. KELLEY. Who told you that?

Mr. CURRY. The Chief of Engineers of the Army, or the Assistant Chief, Colonel Taylor.

Mr. KELLEY. How many feet of dikes are there, or perhaps an engineer can tell us?

Mr. CURRY. Admiral, how many miles of dikes would you estimate about 3 miles?

ADMIRAL GREGORY. One dike is nearly 3 miles long.

— DAVIS. Where is Mare Island as shown on this photograph?

— CURRY. Right in here [indicating].

— BYRNES. Where is the yard?

— CURRY. Right there [indicating].

— KELLEY. And this is—

— CURRY (interposing). Napa River and the channel.

— BYRNES. San Francisco is up this way?

— CURRY. Yes, sir.

— BYRNES. When the tide comes in and then goes out, your idea is that it washes mud in there, or does that mud come from here [indicating]?

ADMIRAL GREGORY. The mud is carried in suspension by storms and comes down this stream and down this one [indicating] and it is stirred; as soon as the tide slackens and the water stands, then the mud settles; it will not settle as long as it is in motion, but it will settle anywhere it happens to be at the time the tide is on the turn. When you get slack water, then is when you get the deposition of this material in suspension.

NECESSITY OF DIKES FOR MAINTENANCE OF CHANNEL.

— BYRNES. And your idea is that by maintaining this dike the mud is brought down in here [indicating]?

ADMIRAL GREGORY. Yes; for the reason that the current is directed means of this dike so that the water comes in and out here [indicating], and this is dead water; therefore, where the water is the mud settles, and it will settle here, too [indicating]. Just as as you have a turn in the tide, but just as soon as the tide changes and it begins to flow again that material, being freshly deposited, will be carried out, because of the current in the channel.

— KELLEY. Where are the navy yard approaches, the piers?

ADMIRAL GREGORY. They are right on the northerly side. Here is the end of the yard. You should really orient this plan and the photograph together in order to get a good idea of it. That is the way it shows the channel, and here is the Mare Island water front.

— KELLEY. You come up from San Francisco this way [indicating]?

ADMIRAL GREGORY. Yes.

— KELLEY. And you turn up in there to go to the navy yard?

ADMIRAL GREGORY. Yes, sir.

— KELLEY. What is this stream?

ADMIRAL GREGORY. That is the Napa River.

— KELLEY. And the navy yard is on this tongue of land here [indicating]?

ADMIRAL GREGORY. Yes, sir.

— KELLEY. But the entrances are all on that side [indicating]?

ADMIRAL GREGORY. Yes, sir.

— KELLEY. And just across the river is Vallejo, the residence of that establishment?

ADMIRAL GREGORY. Yes, sir.

— DAVIS. What is the width of the land there?

ADMIRAL GREGORY. The land along in here [indicating] is nearly a mile in width.

Mr. CURRY. There are 1,400 acres there and the land that belongs to the Government, land that

Mr. KELLEY. Where is this dike on this map?

Admiral GREGORY. Here is this long dike, that is, that is shown on this drawing 2, and that is the one away by reason of the teredo eating into the timber and at the same time the accumulation of material has been so great in the past that there is considerable rear side of the timber, so that with the weakening load and pressure on the back a lot of that has gone out.

AMOUNT OF DIKES TO BE REPLACED.

Mr. KELLEY. Will it be necessary to replace the entire

Admiral GREGORY. Not if we can start repairs in whole proposition is to start repairs before the entire

Mr. KELLEY. How much of it is to be replaced with

Admiral GREGORY. There will have to be nearly as much timber work rebuilt. The exact amount can only be ascertained as the work of repairs proceeds.

Mr. KELLEY. You intend to use timber?

Admiral GREGORY. Creosoted timber; but the ends have to be protected with riprap, such as we describe in West condition, in order to keep that timber from being eroded. We propose to keep as much as now remains intact by putting a layer of riprap on the face of it so it will still be maintained.

Mr. KELLEY. Could you make all of that improvement

Admiral GREGORY. It could be done and we could do it in one year, but it ought to be done under a contract to step in just as soon as we find a place that we would want to be in a position to step right in and rebuild that started to go out. We would start with the places that are threatening to go out. We would already gone out and rebuild them and at the same time protect the whole of each one of those dikes all the time.

Mr. CURRY. We are not asking for any development of Island Navy Yard at this time; we are simply asking that there be taken care of, and if the \$300,000 that is estimated by the engineer officer out there, had it would not be necessary to use so much money then that if the money was not used at this time, it would be times as much this year, and if the money was not used this year it will be twice as much next year.

AMOUNT TO BE EXPENDED FOR REPLACEMENT THIS YEAR.

Mr. KELLEY. How much do you estimate for the coming year?

Admiral GREGORY. We would probably have about half of the total cost which we now estimate for this year, so we are recommending in this appropriation bill that \$150,000 be made immediately available, but permitting a carry-over of the balance to the next year.

entire amount, meeting the other half by an appropriation to be made next year.

Mr. KELLEY. We would not want to appropriate more than you would normally expend during the year.

Admiral GREGORY. I think we would actually expend that much.

Mr. KELLEY. I suppose a limit of cost might be fixed and then appropriate what you would need?

Admiral GREGORY. Yes.

Mr. FRENCH. Would that take care of awarding a contract for the whole amount?

Admiral GREGORY. Yes. I have some recent photographs which show the distressing condition there, and if you will glance over them you will find there is something there which we can not very well ignore.

Mr. KELLEY. We could put in the bill a limit of cost of \$2,450,000, one-half of that to be immediately available, and appropriate the balance when it was needed.

NECESSITY FOR IMMEDIATE REPLACEMENT OF DIKES.

Colonel ROOSEVELT. Admiral, am I not correct in stating that if we do not take care of this now there is a very grave chance of the whole business going out and rendering the yard useless until it is cleaned up?

Admiral GREGORY. That is one of the big probabilities; I would say it is a possibility, but it is more than a probability, and it is probable that result will be accomplished within about two years.

Mr. FRENCH. Then there is another thing I want clear. It would be, assuming that should occur, a question of building dikes in either year or two or three years, but a question of dredging that could be avoided provided the dikes are now built.

Admiral GREGORY. Yes, sir.

Mr. FRENCH. Is that the way you want it understood?

Admiral GREGORY. Not only dredging but also the cost of rebuilding the dikes. If we can step in now we will have to rebuild those where they have gone out, as you have noticed from some of the photographs, and the remainder we will preserve intact by means of the riprap which we will place in front of them, but if we wait until it is all carried out then we will have to rebuild everything; we will have to redredge everything, and we will also, in the meantime, have crippled the navy yard, because the deeper-draft ships will not be able to go up there, and also the commercial interests, which have reason for ships entering that channel, will probably be hindered.

Mr. FRENCH. Then where you are riprapping, supposing the appropriation should be made, will that save, opposite the parts of the yard where you are riprapping, the question of dredging?

Admiral GREGORY. That will save the dredging and also save the rebuilding of your dike.

Mr. BYRNES. Where is your submarine base?

Admiral GREGORY. We have only a minor submarine base there, but there is a submarine base in southern California.

Mr. FRENCH. San Diego, I believe.

Admiral GREGORY. No; San Pedro, where a portion pier is used under permit from the city.

Mr. CURRY. If the committee should authorize the and make one-half immediately available, would it at this time?

Admiral GREGORY. Yes; that is precisely what we mended.

REBUILDING OF WHARVES AND WALLS.

Mr. KELLEY. Why do you divide this into two parts, of dikes and dredging and rebuilding wharves and quay

Admiral GREGORY. I found that division in the know just why it was made, except that it is special

Mr. KELLEY. So we could strike out \$150,000 if we maintenance of dikes and dredging whatever sum we see will cover the whole thing, will it?

Admiral GREGORY. No, sir; you will also have to for rebuilding wharves and quay walls.

Mr. KELLEY. Maintenance of dikes and dredging wharves and quay walls?

Mr. CURRY. If you put that in the item it will cover it.

Mr. FRENCH. If the item of \$200,000 should ever amount we propose for the work you rec care of the situation?

Colonel ROOSEVELT. Provided it is enumerated in that way

Mr. FRENCH. What I mean is, do we need any

Colonel ROOSEVELT. I should not think so.

TOTAL APPROPRIATION MARE ISLAND NAVY YARD.

Mr. KELLEY. Let us get this straight. This bill carries for one item and \$200,000 for another, making \$350,000. The supplemental estimate reads like this:

Supplemental estimate of appropriation for the Navy Department year ending June 30, 1923, for the Naval Establishment, Yards and Docks: Navy Yard, Mare Island, Calif., \$2,450,000

Then there are some other items, and below it is:

These items are in addition to the amounts included in the

So that would be \$350,000 added to \$2,400,000. Is that your understanding of the need of this supplemental estimate in lieu of the other?

Admiral GREGORY. This is in lieu of the

Mr. CURRY. That supplemental estimate. tion to the other, as you will find if you dations to the Budget Bureau and your Budget Bureau.

Admiral GREGORY. The idea is that in to date you have two separate items. In work is almost identical in nature in the rewording in which the total amount wharves will be covered by one item.

Mr. KELLEY. Is it \$2,450,000 or \$2,800

iral GREGORY. \$2,800,000 would be the total in lieu of the hat are now in the bill.

KELLEY. You stated a moment ago that this was not in n but in lieu of the other.

iral GREGORY. It is in addition.

KELLEY. If the \$2,450,000 asked for in the supplemental e is in lieu of what is in the bill, then the amount asked for is 000; if it is in addition to what is in the bill, then the sum 0,000, and we want to be clear which it is.

iral GREGORY. The total asked for is \$2,800,000, but you do d it all appropriated for this year; approximately one-half to dable this year would be all that you could expend, in all ility, during this year.

KELLEY. How much of the \$2,800,000 estimate will be needed rebuilding of these dikes?

iral GREGORY. The dikes will take about \$1,300,000.

KELLEY. And what do you want to do with the rest of it?

iral GREGORY. The rest of it represents the rebuilding of the s and quay walls. That will be \$1,500,000.

KELLEY. Where are those wharves and quay walls?

iral GREGORY. They are along the northerly water front of the land yard proper.

DESTRUCTION OF WHARVES AND QUAY WALLS BY TEREDO.

KELLEY. Are they in danger of being destroyed by this same

iral GREGORY. Absolutely; they are now in such a weakened on that the commandant has absolutely prohibited all use of a nsiderable proportion of the yard water front; it has been l because it is known to be on the eve of going in.

KELLEY. What is this teredo; is it an animal or a vegetable?

iral GREGORY. It is a little marine animal, a bivalve, which n its infancy just like a grain of sand; it adheres to the edge ile and begins boring into the pile, and when it begins to eat begins to grow, and it continues in growth, so that I have seen o as long as 4 feet and as thick through as my thumb.

REASON FOR INCREASED ESTIMATES.

KELLEY. Who made these estimates?

iral GREGORY. They were prepared at the yard and checked the Bureau of Yards and Docks.

KELLEY. This situation is not anything new to you, of course, we heard about it last year. How is it you did not include r amount for this work in the original estimates?

iral GREGORY. I think there is no reason for criticism, because is that the enormity of this question has not been realized thin the last few months, and at the time the estimates were ed for the making up of the Budget last fall it was not known e condition was so serious; it was recognized, of course, and why the estimate appears in the bill, but the enormity of it y begun to be realized within the last few months. When I to office I found that papers were accumulating which indi-

cated a very serious need and I appointed an informal bureau, of engineers, most of whom had had duty at and were familiar with the conditions, and a report submitted to me, which has been examined and found to condition so serious in nature that it was forwarded to of the Navy, and both the Secretary and the I realized that conditions were such that they could not do that the conditions should be made known to you gen effort made to provide for the upkeep of those struc briefly, is the reason for making the amount as it now:

DEPTH OF CHANNEL AFTER IMPROVEMENTS.

Mr. KELLEY. What is your information about the San Francisco up to the yard when these necessary are made?

Admiral GREGORY. All the information we have is to that these dikes have been very successful in raising to the desired depth, and they have been so successful that we feel it wise or proper to make any experiments away from those lines.

Mr. KELLEY. If we make this improvement to a channel from San Francisco to the Mare Island yard of 35 feet?

Admiral GREGORY. Not at low water; no sir;

Mr. KELLEY. What do you say about this channel?

ARMY APPROPRIATION FOR MAINTENANCE OF CHANNELS.

Doctor HOGAN. The project of the Army is 35 feet; appropriation is made to keep it at 35 feet. That is the project of the Army engineers at low water.

Mr. KELLEY. Has that ever been done so far?

Doctor HOGAN. We have places in the channel.

Mr. KELLEY. I am talking about the whole from San Francisco up to the yard. Is there money appropriated to keep the channel at 35 feet if we make this improvement?

Doctor HOGAN. Yes, sir; that is in the Army bill.

Mr. KELLEY. Is that your understanding?

Admiral GREGORY. That is the way I understand it.

Mr. KELLEY. And we get away from all questions of insufficient for the large ships if this project the Army carries out its project?

Mr. CURRY. And also in such dredging as is done year to year, right in front of the yard, before it is done to get the proper depth to handle the ships.

Mr. KELLEY. That is an annual charge, a modification or \$75,000?

Mr. CURRY. Yes, sir.

Mr. BYRNES. The Army bill does not specify project, to make this project a certain depth; it any particular project; it is in a lump sum?

Mr. CURRY. No; for Pinole Shoal, Mare Island turning basin, \$100,000.

KELLEY. This covers the entire channel where there are any ties?

CURRY. Yes, sir.

KELLEY. We want to make that clear, that we are not throwing money away.

CURRY. I would not ask for it.

KELLEY. I know you would not. We want to be sure that is cooperation with the other branch of the Government to this money effective?

CURRY. That is what I had in mind; yes, sir; there is.

KELLEY. There is no dispute about that at all, Admiral?

Admiral GREGORY. I know of none at all.

KELLEY. You do not know of any, Colonel?

Admiral ROOSEVELT. No. I would like, Mr. Chairman, to go into after a little more thoroughly and be prepared to report at a late.

KELLEY. I do not think that our committee wants to go before House with an expenditure of \$2,400,000 with the uncertainty sometimes has surrounded these situations as to whether or not the appropriations were made you could get the ships there.

Admiral ROOSEVELT. I will tell you, as far as the general situation that I am absolutely willing to go strong on record that unless expenditure is made the Mare Island yard will be rendered largely, in all probability.

KELLEY. I want to go further than that. I want to be able that if we make this expenditure to protect these dikes and with the normal amount of dredging which naturally goes with act of this kind that there are projects under way under the action of the Army.

Admiral ROOSEVELT. I would have to look that up.

KELLEY. Making this channel 35 feet, so the yard can be used the ships of the Navy, regardless of size.

OLIVER. Does not that condition obtain now? The work is in contemplation that the War Department will do is for the maintenance of the channel?

Admiral ROOSEVELT. No; that condition does not obtain now.

OLIVER. To what extent does it not?

Admiral ROOSEVELT. I can not tell you offhand.

KELLEY. This is quite a controverted subject, and unless you looked into it quite a bit—

Admiral ROOSEVELT (interposing). That is why I did not want to make a definite statement on the situation until to-morrow; but the statement stands. If this improvement is not made, the Mare Island yard will be largely rendered useless for the Government.

KELLEY. Of course, Mr. Curry is very familiar with this situation and I know that the information he gives is absolutely as accurate as anybody can give, that the Army has the money and the plans in process of being carried out to make this an effective channel way from San Francisco to the Mare Island Yard at 35 feet deep.

CURRY. Not only that, but the Army has already provided the channel. It has to be dredged every year to a certain extent—it has been \$100,000 a year. I think they can maintain it by expenditure of about \$75,000.

Mr. KELLEY. Until this happened, there was no difficulty in the channel?

Mr. CURRY. Not in maintaining the channel. My recollection is that the local officer, Captain Cox, and Admiral McKean and also him Captain Beach, recommended the usual expenditure for dikes and quay walls. Their recommendation was not adopted favorably either by the Navy Department or by the Budget Department. I think the Budget cut out even the recommendation of the Navy Department.

Colonel ROOSEVELT. Yes, sir.

Mr. CURRY. They did that without any knowledge, simply on pencil.

Mr. BYRNES. I want to call your attention to the fact that I stated a while ago, the Army bill as reported does not specify a project at all.

Mr. CURRY. The Army bill as reported has \$27,000,000 in a lump sum.

Mr. BYRNES. Yes, sir; for maintenance of existing and new harbor works.

Mr. CURRY. The Army at present has about \$200,000 for this project, which it is saving for this project, and which it does not wish to divert to any other project. Under this lump-sum appropriation of \$27,000,000 the Army in this case will allocate to this project a sufficient amount of money to maintain the 35-foot channel.

Mr. BYRNES. I should like to call your attention to the fact—

Mr. CURRY (interposing). In the recommendation of the Navy Department they recommended itemized statements for the different projects, but the Budget Bureau put in a lump sum of \$27,000,000 and some odd thousands.

Mr. BYRNES. They first submitted \$42,000,000?

Mr. CURRY. Yes, sir.

Mr. BYRNES. They reduced it to \$27,000,000 and some of the projects will have to be reduced to bring it down to \$27,000,000. You are relying on what they have said. I think you better rely on the engineers to make sure the allowance will be made.

Mr. CURRY. I know that a sufficient amount for this purpose will be allocated by the Army Engineers, because it is one of the most important Government projects which we have.

Mr. OLIVER. If there should be doubt as to the Army doing this, Mr. Curry feels sure they will do, it could be guarded against in the same way that this committee has previously guarded some appropriations by putting a proviso of that kind—you remember how it was done in reference to the Charleston Dock, and the same language that we then used could be inserted, being conditioned upon the fund being allocated and used for that purpose.

Mr. CURRY. They have enough money to take care of the channel; they have \$200,000 for that purpose.

Mr. BYRNES. That will maintain it for a year?

Mr. CURRY. Yes, sir. At the present time the channel has shoaled up in certain places on account of the dykes going out so it would probably require more money at this time, but they have enough money to replace the channel and to maintain it for a year and any more they need they can allocate out of the \$27,000,000.

EXCERPTS FROM ARMY HEARINGS ON CHANNEL.

. KELLEY. I think it might be well to put into the hearings a cerpts from the Army hearings on this proposition, and that ut them together. I read from page 1764 of the report of the eers.

. FRENCH. For what year?

. KELLEY. 1921. [Reading:]

existing project is about 25 per cent completed. The channel across Pinole was completed in 1914 under the existing project, and in addition the Navy ent built a pile dike about parallel with the channel from the southwest Mare Island.

that the dike we are talking about?

miral GREGORY. Yes, sir.

. KELLEY (reading):

di dike has materially benefited both the Mare Island Strait and the San Pablo annels. During the past year the dredging work done by the *San Pablo* has sed the controlling depth in San Pablo Bay and Mare Island Strait channels 6 to 29 feet, with a minimum width of 100 feet. There was a channel of full t width with a controlling depth at the end of the fiscal year of 32 feet over Shoal in San Pablo Bay and 35 feet in Mare Island Strait channel up to a point te dike No. 10.

following work remains to be done.

en it tells how much dirt has to be taken out to make the pro- complete.

. CURRY. The project is 500 feet wide, the channel 35 feet deep, he turning basin 1,000 feet. You will find that in there.

. KELLEY. Yes, sir. It gives three parts of the work yet to be ed. [Reading:]

To dredge Pinole Shoal Channel in San Pablo Bay from the present least depth eet to project depth—total about 600,000 cubic yards.

To dredge the channel in Mare Island Strait to project depth.

To dredge a turning basin opposite the quay wall of Mare Island Navy Yard— f (b) and (c) about 2,750,000 cubic yards.

w, the proposed operations for this current year with the funds able.

lonel ROOSEVELT. May I ask if that is for the coming year or urrent year that we are in now?

. KELLEY. The one we are in now. This was last year's report. ling:]

a the funds available at the end of the fiscal year it is proposed to continue the of deepening the channel through San Pablo Bay and Mare Island Strait to full t depth and width, and to dredge a turning basin in Mare Island Strait. For rk it is proposed to use the hopper dredge *San Pablo*, belonging to this district, ; nine months of the fiscal year 1922, and to operate the patrol boat *Suisun* by labor to enforce fishing regulations and other regulations for the protection of ble waters. The expenditures will be about as follows:

ork:	
annual overhauling of dredge <i>San Pablo</i>	\$12, 000. 00
operation and repairs to dredge <i>San Pablo</i> , 9 months, at \$10,000 per month.....	90, 000. 00
o rata cost of operation of patrol boat <i>Suisun</i> , 12 months, at \$250 per month.....	3, 000. 00
ngineering, superintendence, and contingencies.....	8, 832. 36
Total.....	113, 832. 36

With the funds then remaining (\$143,000), the following work fiscal year 1923:

New work:

Annual overhauling of dredge *San Pablo*.....
 Operation and repairs to dredge *San Pablo*, 12 months, at \$10,000 per month.....
 Pro rata cost of operation of patrol boat *Suisun*, 12 months, at per month.....
 Engineering, superintendence, and contingencies, and office expenses.....

Total.....

No additional funds for the fiscal year 1923 are requested, as the funds are believed sufficient for all urgent work during the fiscal year 1923.

WIDTH AND DEPTH OF CHANNEL.

So that puts up the proposition that the Army is in favor of with the project to complete it as it was originally deep and of a certain width.

Mr. CURRY. Five hundred feet wide.

Mr. KELLEY. If we make this improvement the channel from being filled in again and the yard to the Pacific of 35 feet in depth at low tide.

Mr. CURRY. That is the project. Over Pinole Point at least than 35 feet now.

Mr. OLIVER. I should like to ask the officer if he is in favor of the last statement that we will not have to spend money to maintain the channel?

Admiral GREGORY. Except for minor annual dredging. That is my understanding; yes, sir.

Mr. OLIVER. And you think that result will follow?

Admiral GREGORY. I do.

METHOD OF EXPENDING PROPOSED APPROPRIATION.

Mr. KELLEY. Now, \$1,300,000 is needed for the project. How much amount how much can you use during the coming year?

Admiral GREGORY. Approximately one-half.

Mr. KELLEY. \$650,000?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Is the other expenditure of \$1,300,000 for the improvement of wharves and quay walls as urgent as the other?

Admiral GREGORY. I consider it just about of equal importance for the reason that only during recent years we have felt it necessary to absolutely vacate certain wharves being undermined. He fears that the other wharves will be in the same way.

Mr. KELLEY. What is the total berthing space for the fleet and walls?

Admiral GREGORY. The berthing space is about 11 acres.

Mr. KELLEY. Then this money you want, \$1,300,000, to extend those, but just to put them in proper condition?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. To rebuild and repair the walls?

Admiral GREGORY. To rebuild and repair the walls.

Mr. KELLEY. How much can be expended each year?

Admiral GREGORY. About one-half of that, although it all should under contract so that we can place it together.

Mr. KELLEY. You are asking for an authorization of \$2,800,000 and an appropriation of \$1,400,000?

Admiral GREGORY. Yes, sir. I should like to have this made immediately available.

PORTIONS OF WALLS AND WHARVES IN NEED OF REPAIR.

Mr. KELLEY. What part of the 11,000 feet of walls and wharves rebuilding; how much of it?

Admiral GREGORY. About 3,600 lineal feet of quay wall.

Mr. KELLEY. And how much of the wharves?

Admiral GREGORY. That is something—

Mr. KELLEY (interposing). So you have 7,400 feet of berthing there that is all right?

Admiral GREGORY. It is not all right, because we know that the forces are at work tending to destroy that section as well, and very likely that we will have to expend money on every lineal foot of quay wall in the yard. The 3,600 feet need attention immediately.

Mr. KELLEY. And the \$1,500,000 that you are asking for is to take care of the 3,600 feet?

Admiral GREGORY. To take care of the 3,600 feet and any of the other that needs attention while we are at work.

Mr. KELLEY. But in your estimate you did not include that any other rest would need attention?

Admiral GREGORY. We have not covered any in the actual figures.

Mr. KELLEY. This amount is based entirely on the repairing and rebuilding of the 3,600 feet?

REPORT OF BOARD.

Admiral GREGORY. Yes, sir. This is all very carefully covered in the report of the board to which I have referred heretofore, and I can submit a copy of that to you if you care to go over it and also insert it in the record.

FEBRUARY 13, 1922.

Subject: Board on Mare Island Navy Yard matters. Rear Admiral H. H. Rousseau (U. S. N.), United States Navy, senior member; Capt. F. T. Chambers (U. S. N.), United States Navy, member; Commander G. A. McKay (U. S. N.), United States Navy, member; Lieut. Commander H. D. Rouzer (U. S. N.), United States Naval Reserve Force, member; Mr. E. C. Sherman, member and recorder.

Subject: Board report on dikes and water-front structures damaged by teredo, and water supply for Mare Island Navy Yard.

References: (a) Bureau of Yards and Docks order appointing board, January 21, 1922.

Review of teredo damage; (c) Notes on dikes and channel, history, development, and results; (d) Notes on construction and condition of quay walls; (e) Excerpts from reports from yard on teredo damage; (f) Print showing location of dikes; Blue print showing typical cross section, Dike 12; (h) Print showing location of water-front structures; (i) Photostat showing types of quay walls; (j) Photograph showing typical teredo damage to piles; (k) Water supply, navy yard, Mare Island, history; (l) Map showing Gordon and Wild Horse Valleys; (m) Map showing wells in Green Valley and in Suscol district.

References: (A) to (M), inclusive, same as references (a) to (m).

The board appointed by bureau order of January 21, 1922, inclosure A, to investigate and report with recommendations in regard to certain matters in connection with the United States Navy Yard, Mare Island, Calif., having completed its submission its findings herewith.

2. The two subjects mentioned in the bureau's precept are as follows:

(a) Condition of dikes and sea walls that have been damaged, principally teredo, and remedial measures that are necessary.

(b) Water supply for the navy yard.

These two subjects will be reported upon separately as follows:

3. (a) Conditions of dikes and sea walls that have been damaged, principally the teredo, and remedial measures that are necessary.

The board's investigation of this subject has included an examination of files and of various reports on Mare Island, and on the hydraulics of the Strait and approaches, including the Biddle Board report of June 8, 1911, No. 2 of the Commission on Navy Yards and Naval Stations, dated January 24, 1919, report of special board of inspection of naval bases on the Pacific coast, the McKean Board, dated October 20, 1919. Three members of this board, information regarding local conditions, obtained while on duty at Navy Yard. One of these three members was a member of the Board, two of the same three are members of the Commission on Navy Yards and Naval Stations.

4. The condition on which the board is called upon to report has arisen from the presence of marine borers, principally the teredo, in San Pablo Bay and the Strait, within the last few years, that have attacked all wooden structures in Mare Island Strait proper, according to navy yard authorities. Therefore, up to that time all wooden structures, both in San Pablo Bay and Mare Island Strait had been constructed of uncreosoted material, as the increased cost of creosoted material would not have been justified.

5. The board has examined the recent reports in the bureau files on the condition of the dikes, sea walls, wharves, etc., at the Mare Island Navy Yard, has learned that these dikes, quay walls, wharves, and various other structures of untreated timber have been damaged to such a degree within two and one-half years that portions have already collapsed, and the remaining works are in imminent danger of failure, which may be expected without warning at practically any moment. This condition is a danger to life and property, and has necessitated placing certain portions of the waterfront structures out of commission.

6. The structures affected may, for the purposes of this report, be considered under three heads:

(I) Dike No. 12, extending out into San Pablo Bay;

(II) All other dikes in, and at the entrance of, Mare Island Strait that have been built by the Navy Department for the channel improvement;

(III) Quay walls, wharves, and other waterfront constructions that have been provided for berthing purposes and for similar operations connected with the waterfront.

These three items will be discussed separately as follows:

1. *Dike No. 12.* This is a timber dike, 8,430 feet long, built out from San Pablo Bay from the south end of Mare Island. It was completed about \$35 per lineal foot. An immense amount of soft silt (about 100,000 cubic yards) has settled behind this dike, which acts as a dam in the Strait. The difference in depth of water measured in front and behind the dike is understood to average from 18 feet to 20 feet. This dike is in a very critical condition, and is in a very unsafe condition, and is in a very unsafe condition, and is in a very unsafe condition. The failure of any considerable portion of it at any time, would be most disastrous, for not only would the mud retained behind this dike, slide into the main San Pablo Bay, but also the flood tides would carry large quantities of the break up into Mare Island Strait, where it would be detrimental to the maintenance of this dike is therefore seen to have an important bearing on the prevention of both the shoaling of a portion of the channel and the shoaling of practically the entire area of Mare Island Strait. This dike would certainly necessitate dredging costing many thousands of dollars, viewed from the standpoint of resulting damage only, the appropriation that will enable this dike to be maintained to the satisfaction of the Navy Department.

7. Steps have already been taken by the yard on a hill side of the dike, using material excavated from the hill side of the dike. The suitability of this material is in question, and at least can be used to advantage.

p mound. An appropriation of a considerable sum will be necessary to re riprapping with suitable material.

Other dikes.—These dikes were finished about 15 years ago, at an average cost \$30 per linear foot. They include the two dikes at the entrance to Mare Island Strait, Nos. 9 and 14; various other spur dikes below the navy yard, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 10, and the longitudinal dike. The failure of the longitudinal dike on the west side, that parallels the channel for a length of about 2,500 feet opposite the navy yard, would be accompanied by results similar in character to, though of less importance than, the failure of Dike No. 12, noted above. The failure of the other dikes, while of considerably less individual importance, would be followed by gradual deterioration of the channel in Mare Island Strait, which would necessitate expensive dredging. The board understands that the present depth of channel in Mare Island Strait below the navy yard is about 26 feet at low water. The maintenance of all the existing dikes is necessary to insure the existence of a channel of this depth, which is the minimum to be contemplated. It is, of course, well known that a channel of greater depth would be desirable. The maintenance, therefore, of all of these dikes is absolutely necessary, no matter what the future of Mare Island as regards its further development as a navy yard may be.

The board favors, as the quickest and most easily applied remedy, with the least outlay of money, the riprapping of all of these dikes, including Dike No. 12, with the cheapest suitable material, the riprap to be carried to such a height as to be considered necessary by the local authorities. This method would retain, so far as possible, the existing dikes. It might be found necessary and cheaper for a portion of the dikes to use creosoted sheet piling and creosoted standard piles.

The navy yard walls, wharves, and waterfront constructions that have been provided for the various purposes and similar operations connected with the use of the waterfront: the Navy Yard has always been short of berthing space, and now, within the last one and one-half years, practically all of its waterfront improvements, as noted above, have been damaged to such a degree that portions have already failed and most of the remainder are in imminent danger of failure. This condition is a serious menace to both life and property, and is a great handicap to the navy yard ship repairs and other operations. Repairs to the quay wall are under the limit of available funds, which are very meagre indeed. To date about 1,000 feet of quay wall out of the 3,600 feet affected have been repaired, and an additional section of 200 feet is at present under repair. Repairs have also been made to the foundation of the cantilever crane serving the building ways, to the timber wharf adjacent to Dry Dock No. 2. Some of the magazines have been repaired, and funds are available for the reconstruction of the main loop to the power house. The causeway has been made safe for traffic. The main loop of the main quay wall not under repair has already failed. The quay walls on the east sides of the entrance to dry dock No. 2 has been condemned and can only be used by traveling cranes. Examinations made along the sea wall where set-back pavement and tracks has occurred have shown the presence of cavities of various sizes, which render the use of the adjacent ground and railroad tracks very dangerous. Recent failures of water-front structures in different parts of San Pablo Bay have occurred suddenly and without warning. Mare Island structures affected by the same cause are liable to fail in the same way. The berthing space at Mare Island, the quay walls, wharves, etc., constitutes an essential and indeed the most important connecting link between vessels of the fleet and the yard facilities for the repair, supply, and maintenance of the fleet, and until the yard can be provided with a convenient berthing space, which it now lacks, it will be very seriously handicapped. The appraised value of Mare Island structures is about \$12,000,000, of which the water front improvements constitute about 10 per cent. Their maintenance to the yard as a necessary facility is really several times this figure. It must be of more permanent and expensive construction than that originated. Material exposed to sea water must be of concrete, creosoted timber,

and, briefly described, is the present very critical situation of Mare Island, which that can not be relieved or improved without immediate and substantial appropriations from Congress. For unless sufficient funds become available at an early date that would enable the progressive failure of Mare Island's water-front including dikes, to be checked, the usefulness and value of the navy yard will diminish at an increasingly rapid rate, with the disappearance of the remaining space and the shoaling of Mare Island Strait; and the Government, in any emergency, undoubtedly be called upon to make good any damage resulting from the vast quantity of silt through the failure of dike No. 12, which, on account

of causing the shoaling of the dredged channels across San Pablo Island Strait, will be detrimental to commercial as well as naval interests, and will require large Government appropriations for its removal.

11. The board does not understand that any change is contemplated of the Navy Department to retain the Mare Island Navy Yard as a permanent shore station, and its views are entirely in accord with the following recommendation of the Commission on Navy Yards and Naval Facilities, 1917, relative to Mare Island Navy Yard:

"Mare Island has many advantages due to defensible location, existing dry docks and shops, plant equipment, and various navy-yard facilities of great value and possible service to the fleet; and for these reasons its retention for shipbuilding and the repair and maintenance of the fleet, within limits imposed by 30-foot channel approaches, is desirable, advisable, and recommended."

This board, moreover, does not consider that the advent of marine borer infestation in Pablo Bay and Mare Island Strait is a matter that should affect the recommendation regarding Mare Island.

12. There is, therefore, in the opinion of this board, only one course open to the Navy Department to repair and replace the damaged structures with concrete, and to maintain Mare Island Navy Yard in its present condition and usefulness as before its structures were attacked. No lessening or lessening of the usefulness or facilities of the yard should be contemplated.

13. The board strongly recommends that this course be adopted, and if Congress appropriates at this session sufficient funds to carry out the work of salvaging and reconstructing those structures whose loss would be the greatest detriment to the navy yard and the greatest damage to the fleet, there is every reason to hope that a considerable portion of the impairment may be saved, thus avoiding further damage, which would entail great expense at a later date. This course would contemplate the reconditioning or reconstruction of damaged structures so as to restore as nearly as may be the condition of Mare Island Yard as regards channels and as regards berthing space, and as regards the appearance of the yard. This course may be defined as the maintenance of the status quo of Mare Island Navy Yard, without attempting to improve it beyond what it had before the present crisis arose.

14. Of course there have been various recent propositions for the reconstruction of the facilities of the Mare Island Navy Yard, as well as for the establishment of a naval base elsewhere in San Francisco Bay. The board does not consider that these questions have any connection with the matter of the reconstruction of Mare Island, for the work recommended herein will be necessary and distinct problem of increase of naval shore facilities on the San Francisco Bay.

15. The yard's estimates, as submitted to the Bureau of Yards and Docks, are based on merely retaining Mare Island's status quo, and no important construction other than that required to replace damaged structures in a permanent manner. The estimates submitted June 20, 1923, are as follows:

Project No. 1, for rebuilding timber wharves and quay walls on accreted land:

Item 1, repairs to 3,600 feet of quay wall at \$3.50 per linear foot.....	
Item 2, repairs to timber wharves, 137,000 linear feet of creosoted piling at \$1.75 per foot in place.....	

Total for project No. 1.....	1
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Project No. 2, repairs to dikes:

Item 3, riprapping Dike No. 12.....	1
Item 4, riprapping longitudinal dike.....	
Item 5, repairs to other dikes.....	

Total for project No. 2.....	1
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Total for projects No. 1 and No. 2.....	2
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16. In its review of these figures the board has come to the conclusion that a total of \$2,800,000 is a conservative estimate of the sum required. Dependent upon the source of supply of the materials, saving from the item of \$1,100,000 for riprapping Dike No. 12, 1

or all other dikes, if restored as recommended by this board, would be much too small, and any savings from Dike No. 12 would be required for the other dikes; so that the total of \$2,800,000 will be necessary in any case. The board is of the opinion that the immediate appropriation of this total sum will result in saving a larger percentage of the damaged property than would be possible if the amount for present use be limited to a lesser sum. In any event, economy dictates that the total of \$2,800,000 be authorized immediately for the purposes of making continuing contracts, and that \$1,500,000—\$750,000 on each project—be made immediately available for work to be prosecuted during the fiscal year, to save structures in imminent danger of failure. The foregoing sums are required in addition to an unallotted balance of \$48,500 from an appropriation of July 12, 1921, for the "Maintenance of dikes and dredging."

17. Five items of work appear to be almost equally urgent and should be undertaken simultaneously, viz, (1) reconstruction of quay walls near entrance of Dry Dock No. 2, (2) riprapping Dike No. 12, (3) reconstruction of timber wharves, (4) riprapping longitudinal dike in Mare Island Straits, and (5) riprapping Dikes 9 and 14 at the entrance of Mare Island Straits.

18. The board therefore recommends that every effort be made to secure appropriations as quickly as possible to perform this work in accordance with the navy yard's estimates of \$2,800,000.

19. (b) *Water supply for the navy yard, Mare Island, Calif.*—There are no sources of fresh water on Mare Island, and the navy yard, originally depending upon such water as could be collected in cisterns, has obtained its supply from Vallejo for more than 40 years. The quantity available has at times been inadequate, but it has not been deemed necessary or advisable to seek from Congress the appropriation which would be necessary for the installation of an independent water supply, and the yard has continued to place dependence upon the city of Vallejo for many years, which has accordingly an implied, if not a direct, responsibility at present for maintaining a water supply adequate for all requirements of the navy yard in addition to those of the city of Vallejo. Since May, 1918, the Navy has been obliged to lease wells in Green Valley and pump into the Vallejo mains, in order to obtain a sufficient supply. The lease expires on June 30, 1922, and it becomes necessary to obtain a new source, the owners requiring the Green Valley wells for irrigation purposes. These Green Valley wells were required to supplement the Vallejo city supply from Wild Horse Valley, which, owing to the scanty rainfall of the past few years, had become practically exhausted.

20. When this board was appointed in January, serious doubt existed as to the city's intention to recognize its responsibility in this respect; but correspondence received by the bureau from the navy yard since then, and oral statements made to the board in Washington on January 30 by Dr. James J. Hogan, president of the Chamber of Commerce of Vallejo, indicate that either the city of Vallejo or a group of its citizens will finance and prosecute any necessary increase or modification in the present water supply system, and that therefore no further action by the Navy Department at this time will be necessary. The plan contemplated is to supplement the present supply when the Green Valley wells have to be abandoned within the next few months, by obtaining a supply from the Suscol wells and connecting up the latter with the city supply main. If definite assurances, which have been asked of Vallejo by March 1, 1922, are not received relative to increase in the present water supply, it will still be possible, as outlined in inclosure "K" for the Navy Department, to make all necessary arrangements to obtain the Suscol supply for its own use before pumping from the Green Valley wells must stop.

21. This board, therefore, recommends that no action be taken and no decision be made by the Navy Department prior to March 1, 1922, on the water supply matter, and that if by that time Vallejo or Vallejo interests do not offer a satisfactory solution of the water supply question, the Navy Department proceed to obtain a supply for its own use from the Suscol wells, which are understood to be the most convenient and practicable source of supply available at the present time.

H. H. ROUSSEAU,

Rear Admiral (C. E. C.), United States Navy, Senior Member.

F. T. CHAMBERS,

Captain (C. E. C.), United States Navy, Member.

GEO. A. MCKAY,

Commander (C. E. C.), United States Navy, Member.

H. D. ROUZER,

Lieutenant Commander (C. E. C.), United States Naval Reserve Force, Member.

E. C. SHERMAN,

Supervising Engineer, Member and Recorder.

EXTENSION OF PIER NO. 4.

Mr. KELLEY. "Pier No. 4, extension, \$500,000?"

Admiral GREGORY. Pier No. 4 is a concrete pier built in 1914 and 1915. It is only 500 feet long. It is the only pier on almost exclusively at the present time for taking on the ships, because it is the only modern pier they have. It is short. The need for lengthening that pier to such an extent will permit these large ships to lie alongside is an urgent one in accordance with the development plans which were made a number of years ago and approved by all branches of the Department as being necessary.

Mr. KELLEY. How much berthing space have you there with this pier?

Admiral GREGORY. About 2,500 feet one side of piers.

Mr. KELLEY. Including Pier No. 5 which has been extended?

Admiral GREGORY. Not including Pier No. 5.

Mr. FRENCH. How is the work progressing on Pier No. 5 for an appropriation was made last year?

Admiral GREGORY. The contract was signed for that work a month ago. I imagine that the work is just fairly begun by the contractors.

Mr. FRENCH. How long will it take to complete that?

Admiral GREGORY. I think possibly 12 months.

Mr. FRENCH. Does this 2,500 feet of berthing space include pier or not?

Admiral GREGORY. That is a different pier. That is Pier No. 5. This is Pier 4.

Mr. FRENCH. I know, but in the yard you have 2,500 feet of berthing space exclusive of Pier No. 5?

Admiral GREGORY. Yes, sir.

Mr. FRENCH. How much will Pier No. 5 give you?

Admiral GREGORY. Pier No. 5 will give us 2,000 feet.

Mr. FRENCH. That will make a total of 4,500 feet?

Admiral GREGORY. Yes, sir.

Mr. FRENCH. Without Pier No. 4 being extended?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Nearly a mile of berthing space. Will that be sufficient out there?

Admiral GREGORY. It is not so much the length as it is the number of ships you have to take care of, particularly when there are large ships such as we have to send to that yard. It is the only yard where the large battleships in our service can be repaired on the Pacific coast.

Mr. KELLEY. You can use Pier No. 5?

Admiral GREGORY. After we get it completed, it will be out of commission. After it is rebuilt we can use it.

Mr. KELLEY. Have you not started to build that?

Admiral GREGORY. They are just about to start. It was let within the last month.

Mr. FRENCH. What berthing space will Pier No. 4 give you?

Admiral GREGORY. Pier No. 4 will give us—

Mr. FRENCH (interposing). I mean the extension.

Admiral GREGORY. The extension will be 1,420 feet. 700 feet on each side.

Mr. KELLEY. Is this 2,500 feet of berthing space on one side or both sides of the pier?

Admiral GREGORY. That is based on one side only.

Mr. KELLEY. So you would have 5,000 feet on the two sides?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Then, when you get 2,000 feet on Pier No. 5, that is one side?

Admiral GREGORY. No; two sides.

Mr. KELLEY. So that would be 2,000 feet more, or you would have 3,000 feet of pier space there?

Admiral GREGORY. Yes, sir.

NUMBER OF VESSELS TO BE BERTHED.

Mr. KELLEY. How many vessels are you planning on berthing there?

Admiral GREGORY. The record we have shows that at one time we have had as many as 26,000 linear feet of vessels at that yard.

Mr. KELLEY. What were they—mostly destroyers?

Admiral GREGORY. All kinds, battleships, cruisers, destroyers, fuel ships, and subchasers.

Mr. KELLEY. You realize that is 5 miles of ships?

Admiral GREGORY. Yes, sir.

Mr. FRENCH. That does not include those tied up?

Admiral GREGORY. That includes everything laying at the yard.

Mr. FRENCH. A little over a year ago when I was there, there were great many ships rather locked together and I supposed just merely crowded with men enough to care for them, tied up in the water.

Admiral GREGORY. They have been moored off the yard, moored over her to buoys or with their own anchors.

Mr. FRENCH. They do not need any berthing space?

Admiral GREGORY. It is desirable that they should have berthing space. Whenever they are lying outside like that they are not getting the attention which they should be given. If they have a crew on board and no work to be done on the vessel, then there is no possibility of having them like that. If they have to have a lot of workmen aboard there is a great loss of time in not being able to come back and forth frequently and get materials and tools when required. On the other hand, if the ship is out of commission, it is also desirable to have her along a pier so she can be more accessible to the working parties of the yard rather than entirely separate from the yard supervision.

FOOTAGE OF PIERS.

Mr. KELLEY. Let us go back to the pier again. You have or will have 6,000 feet when your present improvements are completed, and you want to add 1,500 more feet; is that correct?

Admiral GREGORY. Fourteen hundred and some odd feet; yes, sir.

Mr. KELLEY. Has your contract been let for Pier No. 5?

Admiral GREGORY. It was let about a month ago.

Mr. KELLEY. And that will be completed within the amount of appropriation?

Admiral GREGORY. Yes, sir; the amount of contract recently awarded was within the appropriation.

Mr. KELLEY. How many battleships will be

Admiral GREGORY. That depends entirely upon the department assigns to the Pacific and how many there will be at one time. There have been as many as nine battleships in the Pacific at one time.

Mr. KELLEY. How many are in the Pacific now?

Colonel ROOSEVELT. That I can not tell at this part.

Mr. KELLEY. Are there nine?

Colonel ROOSEVELT. There were more than 9; I think there is 10, but I would not swear to that.

BERTHING FACILITIES AT MARE ISLAND.

Mr. KELLEY. You have some at San Francisco?

Admiral GREGORY. The largest ships do not go into Mare Island yard.

Colonel ROOSEVELT. This is really the yard for the largest ships.

Mr. KELLEY. About the largest ones you have got in the Pacific at Mare Island, and if they came out they should be able to go to the Pacific.

Admiral GREGORY. No, sir; because when they come out they do not have their guns and stores on board, but they have them on the ship.

Mr. KELLEY. They come out on high tide?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. They come out all right?

Admiral GREGORY. Yes, sir; when they are light.

Mr. KELLEY. They could also go in at high tide.

Admiral GREGORY. Yes, sir; at extremely high tide.

Colonel ROOSEVELT. It is too touchy a proposition in the case of a big battleship, Mr. Chairman.

Mr. KELLEY. You will find that they can go in and out.

Colonel ROOSEVELT. It is the kind of thing you would like to do if you could help it.

Mr. KELLEY. There has been a good deal of talk about the yard against the Mare Island yard that is not desirable.

Colonel ROOSEVELT. All I can say is that it is a matter of propaganda, but it has been investigation after investigation.

BERTHING FACILITIES OF PUGET SOUND YARD.

Admiral GREGORY. We feel that the pier outfit at the yard, which, until you recently authorized the reconstruction of No. 5, was entirely out of date, is inadequate, and not suited to the needs of the yard. We have to modernize that yard in all ways, since it was the only yard in the United States that was able to handle the modern ships on the Pacific coast. It is the complexity of the entire situation.

Mr. KELLEY. You are speaking of Puget Sound?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. There is no doubt about this there, because the water is deep.

Admiral GREGORY. There is none whatsoever. The facilities of the yard are considerably superior to the facilities of any other yard we have.

Mr. KELLEY. But the geographical location of it is not a less use of that yard than would be the case in the case of any other yard.

Francisco. Whatever development is made there, it will be the place on the Pacific.

Admiral GREGORY. That does not necessarily follow. It depends upon how much you find may be necessary for the development of Alaska, and upon the question of whether maneuvers will be held in the North Pacific at some future time.

Mr. KELLEY. Is there much fog up there?

Admiral GREGORY. They have fogs up there, but I do not know if it is any worse than at any other place. I have seen as much New York or at San Francisco.

Mr. FRENCH. Is it more so at San Francisco?

Admiral GREGORY. There is not a great deal of difference with regard to fog conditions between Puget Sound, San Francisco, and New York City.

Mr. KELLEY. If you do not get Pier No. 4, you do not want the thing?

Admiral GREGORY. The two do not go together.

Mr. KELLEY. The dredging is up against the sea wall, is it not?

Admiral GREGORY. No, sir; that dredging is in two places—one next to Pier No. 4, and in another area between Piers 7 and 8. These are two areas which have not been heretofore dredged, and these are original bottoms.

COST OF DREDGING AREA BETWEEN PIERS 7 AND 8.

Mr. KELLEY. How much will it cost to dredge the area between Piers 7 and 8?

Admiral GREGORY. That would probably take three-fourths of it.

Mr. KELLEY. \$35,000, or some such matter?

Admiral GREGORY. I think our estimate was arbitrarily reduced, because prices were dropping.

Mr. KELLEY. Is it about \$35,000 for the two?

Admiral GREGORY. In the event we dredge the area between Piers 7 and 8, it would probably cost about \$40,000, and the area next to Pier No. 4 would take the remaining \$10,000. However, the two would really have to go together in order to get the benefit of that unit price.

Mr. KELLEY. My recollection is that you built a sea wall down here to hold the earth that you had scraped down when you leveled the hill there into the sea. You then built a sea wall, and the piers come up next to the sea wall.

Admiral GREGORY. Yes, sir.

Mr. KELLEY. And it will take some dredging at that point if you build additional piers?

Admiral GREGORY. No, sir; that is not the same pier. This dredging is to be next to Pier No. 4, and it is not on account of that new pier sea wall.

Mr. KELLEY. I thought the sea there was very deep.

Admiral GREGORY. This new fill that you speak of would be about 100 feet high [indicating]. This [indicating] is Pier No. 4, which has a pier approach, with concrete from that angle [indicating] out. We propose to extend it out 710 feet more. This area is right at the entrance to the dry dock as well as at the approach to Pier No. 4. It is desired to have this area dredged out in order to entirely

remove any obstruction to the entrance to the dock as well as the pier.

Mr. KELLEY. This earth should be removed from the approach to the present pier.

Admiral GREGORY. Yes, sir; from the dock entrance.

Mr. KELLEY. That part, you say, will cost \$10,000, provided it be done in connection with the other job?

Admiral GREGORY. Yes, sir; the relative proportions are \$10,000 as against \$49,000, making a total of \$60,000, but we have arbitrarily reduced that to \$50,000, or one-sixth, provided the two go together.

RIFLE RANGE, INCLUDING PURCHASE OF LAND.

Mr. KELLEY. Now, as to the rifle range, including the purchase of land. Is that adjacent to this yard?

Admiral GREGORY. That is not adjacent to the yard, but it is 10 or 11 miles north of the yard. This is a proposition which has been discussed for a good many years, and during my period of command at that station I had to make a great many searches in different parts of the country to find a site which would be suitable for a rifle range. It was felt to be a crying necessity for the enlisted force to get training in the handling of small arms in all ways possible, and it was important to find a suitable place. The Government does not own a rifle range, so called, directly south of the navy yard, on the Orchard side of the bay. That range is a stretch of land with a good backstop, however, except a few small trees. Much of the small timber is on private property north of the station, and we have been threatened with damage suits very strenuously by the owners because bullets come into their timber and they have lost their timber by getting some filled with the bullets. The principal objection to that range, however, is the fact that during a large part of the year the site is practically cut off by reason of the impassable roads, and it has been found that the Government simply cannot make use of it. Now, we have made investigations there that have been extended over a great many years. I have personally traversed over a great many square miles of that territory with a view to finding a suitable place, and other officers also have been making searches. After searching for approximately seven or eight years we finally found this particular area, and have not succeeded in finding anything better since then. It is within a mile and a half of the water front at the torpedo station.

DISTANCE OF PROPOSED RANGE FROM NAVY YARD.

Mr. KELLEY. How far is it from the yard?

Admiral GREGORY. It is 11 miles north of the yard.

Mr. KELLEY. How much land do you want to buy?

Admiral GREGORY. The area is 320 acres. It is one mile north and south and half a mile east and west.

Mr. KELLEY. It is 11 miles from the yard?

Admiral GREGORY. It is 11 miles from the yard by way of the Port Pier. This rifle range is about a mile and a half south by water from Keyport Pier.

Mr. KELLEY. It would be about twelve and a half miles from the yard?

Admiral GREGORY. Yes, sir, of which 11 miles would be by water and one and a half miles by land, but coming back towards the

COST OF RANGE AND RANGE SITE.

KELLEY. How much would it cost to put the range in use?

miral GREGORY. The appropriation now being requested will be for the purchase of the land, together with the most urgent things that will be required. It would probably be a good many years before we would expand enough to use all of it as a range, so as to require any further appropriation. Furthermore, it is likely that everything else had to be done would be done by the enlisted force on the range there using the range.

KELLEY. What amount is estimated for the land?

miral GREGORY. We had to guess at the amount for the land, but we do not have a close figure. In fact, we had refusals from property owners, and every year we postpone the purchase we find that it is more expensive to buy.

KELLEY. What is the assessed valuation?

miral GREGORY. The total value on which assessment is made is only about \$3,685, but I know that is only a very small proportion of the land we would have to buy.

DAVIS. Are there any improvements on the land?

miral GREGORY. It is about half and half. Some of it is improved and some is not.

DAVIS. What do you mean by improvements in that connection? Is it farming land?

miral GREGORY. It is grazing land. About one-half of the entire area is wooded with scrub timber, and of the remaining half about two-thirds is grazing land and the other one-third is farming land.

DAVIS. \$3,500 would be a good price for it.

miral GREGORY. The average price during the periods we have had the project under consideration, covering this entire area, has been about \$22,000, but we have been holding these people off so long that I do not believe that we could get them to renew those contracts at that figure, and I dare say we would have to pay almost anything that at the present time.

KELLEY. Have you used this land?

RENTAL OF SITE AND COST OF ITS PURCHASE.

miral GREGORY. We have actually used it for firing for years, and it has been very satisfactory.

KELLEY. You are using it now?

miral GREGORY. We are using it now on a rental basis, getting a return on time.

KELLEY. How much are you paying a year for it?

miral GREGORY. At first they did not ask anything for the use of the land. They wanted us to try it and see if it were suited to our use, and for the first year, as I recall, it cost us nothing. Since then the land has been used on a rental basis through the Marine Corps, and I have no record of what they pay. As I recall it, however, the rental is about \$100 a year. The portion that has been in the good land. They have not been using the rough land.

KELLEY. Is there any particular urgency about buying it?

miral GREGORY. While there may not be any great urgency, it is a thing that is decidedly missed out there when the fleet is at

Bremerton, because they have no way in which to train in the handling of small arms.

Mr. KELLEY. You would need to make some improve land?

Admiral GREGORY. Yes, sir; we would have to build target firing butts.

Mr. FRENCH. I would like to go into the cost of this land a bit more. You say that the assessed valuation is \$3,900.

Admiral GREGORY. \$3,685 is what we have got from the tax.

Mr. FRENCH. I am somewhat familiar with the difference of values to real values, and I would say that the price asked for it on the basis of even \$22,000 is simply asking for it. I think you will find that they are asking that price when talking about acquiring it. If we had the same law that in Australia, under which the State could buy the land at that valuation, or else that the owner be compelled to pay on a higher basis, you would not have any such fictitious valuation on that land as \$22,000. I think the way to acquire that land and abandon all interest in it until they have dropped to proper value.

Admiral GREGORY. I do not think that would have any effect. I am decidedly in agreement with you in regard to the question of assessed valuation, but I am also aware of the fact, having to do with a great many land purchases in and around Puget Sound, that there is no relation whatever between the assessed value and the actual sale value.

Mr. BYRNES. As a matter of fact, that is true in many cases.

Admiral GREGORY. It would be so in that local case.

Mr. FRENCH. I suppose values have changed very much there, because the country is growing; but, it seems to me that there should be a closer relation between the assessed value of the land for taxing purposes and the price they offer to sell it.

Admiral GREGORY. Yes, sir; but that is something I have no control over.

Colonel ROOSEVELT. As I understand it, that is the proposition. We can not get a long lease on the land and we can not rent it for a long period of time. The chances are that at any time we may be turned right off, in the trend of the situation out there and from the land is developing, it is probable that the longer we wait the more we have to pay.

Mr. FRENCH. Is not this a question that you would take up with the other committee?

Mr. KELLEY. I thought that we had as well get it now.

Colonel ROOSEVELT. That is about the general question, is it not, Admiral?

Admiral GREGORY. Yes, sir; that is perfectly correct.

ADAPTABILITY OF SITE FOR TARGET PRACTICE.

Mr. KELLEY. If this place was being improved for target practice they would not want to sell this tract for anything less than that they are willing to sell it for a rifle range. The whole region is not to be used for anything else.

Admiral GREGORY. It happens that at the north end of this property there is a high hill bordering it, 400 feet above the plain to the South, and we have selected this land because it is in such a place that the shooting will be into this high hill.

This hill has such a steep slope and is, furthermore, so densely wooded that it is not likely that that particular land or the surrounding land would be developed. The small plain that we are now using for rifle-range purposes is farming land. When we first went in there they were farming a certain percentage of it, but since then additional land has been put under cultivation. That has been done because the population of the district has been increasing. Consequently, we felt like this, that the longer we put it off the more price will be asked, for the reason that more and more of the land will be under cultivation. Now, the rough land, or what is called pasture land, or land that is covered by scrub brush, poplar, etc., is not of very great value, but the part that is under cultivation has value and it is increasing in value all the time.

STATEMENT OF PROGRESS OF WORK ON PATTERN-SHOP EXTENSION, DRY DOCK, ETC.

Mr. FRENCH. Probably we should have a statement covering the progress of the work there on the pattern-shop extension, the dry dock, and the additional storage facilities.

Mr. KELLEY. Suppose you put in the record a statement of the progress you have made on the work in connection with each one of the improvements appropriated for last year.

Admiral GREGORY. I will do so.

Grading, filling, and sea-wall construction, \$250,000. This appropriation is completely obligated under contract recently awarded for quay wall.

Keel blocks for Dry Dock No. 2, \$6,500. These blocks are being delivered, and are being installed by yard forces.

Extension to building No. 178, \$13,500. This building is being erected by yard forces under allotment of funds. Work just begun.

Roadways and walks, \$25,000. Work completed by yard forces.

Pier 5, \$715,000. Contract awarded latter part of February, 1922. Work has started.

Telephone improvements, \$10,000. Requisition for all equipment forwarded to Bureau of Supplies and Accounts, via Secretary, March 17, 1922.

Pattern-shop extension, \$90,000. Work under way by yard labor.

Fifty-ton dry-dock crane, \$200,000. Materials for this crane are all assembled at point of fabrication. Fabrication is 25 per cent complete, and shipping orders have been forwarded to the contractor.

Additional storage facilities, \$95,000. Plans and specifications for this development are complete, and the project is now under advertisement.

BATTLESHIPS ON PACIFIC COAST.

Colonel ROOSEVELT. Before we go on I should like to say that my statement as to the number of battleships in the Pacific was correct. There are 10 there now, but 11 will be there in the near future. The *Maryland* is undergoing some minor repairs before going there, so there will be 11 in all. In that connection I would just simply like to point out that the number of lineal feet does not necessarily mean the number of feet that can be used for berthing battleships, because—stand ready to be corrected by these gentlemen at any time—you can very often have lineal feet which would be simply useful for berthing smaller vessels, but are not of such an extent that they would be useful for berthing battleships. That is correct?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Where you have a long pier, 500 feet or 700 feet, length of the pier determines the number of battleships?

Colonel ROOSEVELT. Yes, sir. You can not put two and a half one and a half ships—that is what I meant.

Mr. KELLEY. With this yard at Mare Island put into the we are now planning, it probably would be much more likely used extensively than the northern yard, do you not think so?

Admiral GREGORY. By the larger ships which do not go up as they do to Bremerton.

Mr. KELLEY. There are much better shops at Mare Island than Bremerton?

Admiral GREGORY. Somewhat, but both yards are fairly equipped with shop space at the present time.

Mr. KELLEY. My understanding was that Mare Island was exceptionally well equipped—they built the *California* just recently?

Admiral GREGORY. Yes, sir. Battleship machinery can not be built completely at Bremerton.

Mr. KELLEY. If the channel difficulty is taken care of, the at once becomes a great asset?

Colonel ROOSEVELT. That is why I reserved until to-morrow statement on the matter.

NAVAL STATION, PEARL ISLAND, HAWAII.

ADDITION TO MACHINE SHOP.

Mr. KELLEY. At Pearl Harbor you are asking for an addition to the machine shop, \$200,000. What about that, Admiral? provided for an addition there last year, \$200,000; has that completed?

Admiral GREGORY. Under the appropriation acts of June 4, and July 12, 1921, the appropriations aggregate \$300,000 for project.

Material for a modern steel building, 523 by 180, with crane secured from the War Department without transfer of funds was shipped to Pearl Harbor. Foundations for this building being installed by station labor, and it is expected that contract for erection of the building proper will be awarded in the near future. The contract for erection of the steel has been awarded and work is well under way. An additional appropriation will be required for the completion of the building and for machinery foundations, floor distributing systems, roadways, and sidewalks, and the various auxiliary features necessary to put the shop in operation.

Mr. KELLEY. There was an appropriation for this last year and this year. You have not started the work or let the contract have you?

Admiral GREGORY. That building was transferred from the War Department. We have got it there ready to put it up, but we can not do it until the foundation is made ready for the erection of the building.

Mr. KELLEY. This is an addition to the machine shop?

Admiral GREGORY. It is an addition to the machine shop.

Mr. KELLEY. You will have to get the machine shop up before you build this addition?

iral GREGORY. The original machine shop is there, and this additional building for which \$200,000 was given last year.

KELLEY. Has that been expended?

SMITH. \$45,000 of it has been allotted, but not expended. hundred and fifty-five dollars of it has not yet been allotted, is about to be allotted toward the completion of the building.

KELLEY. \$45,000 of it has been allotted, but it has not been ended?

SMITH. No, sir; it has not been actually paid out.

KELLEY. We can let that go until next year all right, can we

lonel ROOSEVELT. I am not prepared to say as to that, and I to put in a caveat. That is very important out there now.

KELLEY. If these officers do not know enough about it to say it is urgent, I think it could be very well postponed. It appears they have allotted \$45,000, which they have not expended, and they have not allotted the rest of it. They have not expended of it.

lonel ROOSEVELT. Therefore, I am not prepared to say now. I to go into it.

E.—Investigation discloses the fact that machine tools sufficient to equip this building are now available on the ground, having been transferred from War ment surplus stock. To secure the benefits of the whole installation, it is ecessary that building operations be carried through to completion.

rther argument for continued prosecution of the work is afforded by the present of the project. The foundations are progressing toward completion and the raming is straightened, painted, and ready to be erected under a contract y let. Bids for the completion of the superstructure will be received in the liate future. The department is strongly desirous of obtaining the benefits would accrue from the use of this shop, the necessity for which is in nowise shed at this time. Construction is definitely under way, and steady prosecu- completion as planned is unhesitatingly recommended.

ITEMIZED STATEMENT OF PROPOSED EXPENDITURE FOR ADDITION.

miral GREGORY. I can give you the information as to how the appropriation of \$200,000 is to be spent.

e item of \$200,000 included in the Budget under the heading "Con- tribution to machine shop" will be required to cover the various necessary to complete the building for operation. A list of items with approximate estimates of cost is given below:

wood block on concrete base).....	\$70,000
ne tool foundations.....	30,000
outing system (air, water (including fire protection), electric (including le power wiring and substation equipment), telephone).....	70,000
ation of cranes.....	9,000
.....	8,000
and walks.....	10,000

Total..... 197,000

th the possible exception of a small margin for contingent fund, 300,000 appropriated in the naval appropriation acts of June 4, and July 12, 1921, will have been expended in the preparation e materials for reerection, foundations for building, the erection eelwork, and the completion of the building proper. This 000 is not a new item, having been anticipated since the project ving and reerecting this building was undertaken. When esti- were submitted for the fiscal year 1922, the bureau's estimate

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and walks.....	10,000

Total..... 197,000

th the possible exception of a small margin for contingent fund, 300,000 appropriated in the naval appropriation acts of June 4, and July 12, 1921, will have been expended in the preparation e materials for reerection, foundations for building, the erection eelwork, and the completion of the building proper. This 000 is not a new item, having been anticipated since the project yring and reerection this building was undertaken. When esti- s were submitted for the fiscal year 1922, the bureau's estimate

Commander ROUZER. Yes, sir.

Mr. BYRNES. You are asking \$200,000 additional?

Commander ROUZER. Yes, sir.

Mr. BYRNES. Making \$500,000 you are asking for the machine shop?

Commander ROUZER. Yes, sir.

Mr. BYRNES. What is your estimate of the total cost of the machine shop?

Commander ROUZER. \$500,000.

Mr. BYRNES. This is to complete that addition?

Commander ROUZER. I think there is a misunderstanding of the addition. It might be called an additional machine shop is a building secured from the Army up near Philadelphia.

Mr. KELLEY. When was it moved?

Commander ROUZER. The transfer was made without any to the Navy.

Mr. KELLEY. When was it made?

Commander ROUZER. Just before the armistice.

Mr. KELLEY. In 1918?

Commander ROUZER. Yes, sir.

NOTE.—Records show that this building was shipped to Pearl Harbor

Mr. BYRNES. That is what you call an addition to the machine shop?

Commander ROUZER. Yes, sir.

Mr. BYRNES. The \$100,000 was the first money applied to work?

Commander ROUZER. Yes, sir. This is a steel building 52 long and 180 feet wide.

Mr. BYRNES. Did you estimate in 1920 that, having moved building out there, it would cost \$500,000 to complete it?

Commander ROUZER. Yes, sir; a foundation had to be put for the steel structure.

STATEMENT OF APPROPRIATIONS, COSTS, AND EXPENDITURES FOR ADDITION TO MACHINE SHOP.

Mr. BYRNES. Of this \$300,000 you have already received, how much have you actually spent?

Colonel ROOSEVELT. Suppose we let the matter stand until to-morrow. By to-morrow I will have it checked up and termine, (a) whether the estimate can be revised, under present conditions, cheaper costs, etc., and a cut in the estimate, and (b) whether the situation is urgent and whether the money should all be expended in this year or whether a proportion of it could be taken care of out of next year's appropriation.

Mr. KELLEY. We will be glad to have you report to-morrow.

NOTE.—As stated heretofore, the machine-shop building was built by the Army in 1920 without cost to the Navy other than transportation from the States to Pearl Harbor.

The estimate of \$500,000 to complete the additional machine shop and it is found that certain additional expense has been contemplated at the time original estimate was made. The structural steel is greater than originally estimated, due to it having been rehandled so many times that the cost of straightening it is

\$10,000 more than was originally anticipated. It is also developed that much of the material which it was thought could be moved and reused was unfit for use. None the gypsum roofing material can be used. A further expense has been encountered furnishing missing parts of the building. An additional expense arose from the necessity of cutting and splicing some of the heavy members to permit of their being carried in the ship assigned for this purpose. These items of extra expense offset the saving which might be anticipated as the result of increased efficiency of labor. To date, bids received from Hawaii do not show the same decrease in cost which has occurred on construction work here in the States.

The condition of the building at the present time is, the foundations are well under way and the steel has been straightened and the contractor for the steel erection starting this work. Bids will be taken as quickly as they can be secured on the roofing and siding, and following this, if the building is to be made available, there immediately be required money for the floors for the crane erection, machine tool foundations, distributing system, tracks, roads, and walks, which items are contemplated under the \$200,000, requested in the pending naval bill. All of this work will be completed during 1923, and unless money is made available for these items the station will be unable to use the building.

There is given below a detailed statement of appropriations already made and expended, together with estimates of cost of work under way and necessary to complete the project:

Appropriations:

No. 232, subhead 76, act of June 4, 1920.....	\$100,000.00
No. 232, subhead 80, act of July 12, 1921.....	200,000.00
Proposed appropriation, fiscal year 1923.....	200,000.00
Total.....	500,000.00

ITEMS OF WORK.

Completed: Furnishing missing parts of building..... \$5,284.76

Under way:

Straightening and painting structural steel of building (station labor).....	\$29,500.00
Foundations of building (station labor).....	50,000.00
Erection of steel work (contract 4464).....	45,825.00
	125,325.00

Ready for bids: Completion of superstructure of building.. 165,000.00

Total..... 295,609.76

Items necessary to complete project:

Floor (wood block on concrete base).....	70,000.00
Machine tool foundations.....	30,000.00
Distributing system (air: water, including fire protection: electric, including inside power wiring and substation equipment; telephone.....	70,000.00
Installation of cranes.....	9,000.00
Tracks.....	8,000.00
Roads and walks.....	10,000.00

Total..... 197,000.00

Contingent..... 7,390.24

Total estimated cost of project..... 500,000.00

ADDITIONAL STORAGE FACILITIES.

Mr. KELLEY. For additional storage facilities you estimate \$65,000. You had \$200,000 for storage facilities last year. Have you spent that?

Admiral GREGORY. That is all obligated except about \$3,000.

Mr. KELLEY. Have you spent it?

Admiral GREGORY. It will all be expended this year.

Mr. KELLEY. How much have you spent?

Admiral GREGORY. All of it has been expended except \$3,000.

Mr. KELLEY. The buildings are up?

Admiral GREGORY. It is under contract.

Mr. KELLEY. You want to put up an addition with this \$265,

Admiral GREGORY. They now need an additional storehouse, and it is the one covered by this estimate.

Mr. KELLEY. Tell us about that.

Admiral GREGORY. There is at present but one general storehouse containing about 80,000 square feet of floor space, and the present lack of storage space is one of the greatest weaknesses of the yard.

Mr. KELLEY. This is a new building?

Admiral GREGORY. Yes, sir; a new building.

Mr. KELLEY. We had as well stop right there, then.

Admiral GREGORY. It is for the storage of things now largely in the open.

Mr. KELLEY. We do not have authority to build new buildings.

Mr. OLIVER. Where are the things you now speak of that are in storage space?

Admiral GREGORY. They are right at the station. I do not know just what quantity, because I have not seen it, but it is reported that they have a large amount of stuff stored in the open.

Mr. KELLEY. You might tell us why this is necessary.

Admiral GREGORY. There is included a one-story storehouse building, which is a separate building, costing \$200,000, in addition to the paint and oil storehouse costing \$65,000. The two items included. This addition to the oil and paint storehouse is estimated to cost \$65,000.

Mr. KELLEY. Why do you need that addition?

Admiral GREGORY. That is material which I understand is stored in the open now. The paint is in cans, and there are other materials of that kind.

Mr. KELLEY. How much addition will you build?

Admiral GREGORY. We have the plans of that, but I cannot show them with my hands on them.

Mr. KELLEY. I suppose it is to be constructed of cement and steel.

Admiral GREGORY. It is to be a fireproof building.

Mr. KELLEY. A one-story building?

Admiral GREGORY. I think it is a one-story building. I can show you the details of that.

Mr. KELLEY. The material to be stored is now in open storage.

Admiral GREGORY. Yes, sir.

Mr. KELLEY. What do you need the \$200,000 for?

STORAGE SITUATION OF PEARL HARBOR.

Admiral GREGORY. That is a separate building. I have been trying to find out the nature of the stores they have had in there, but I did not find out. I will have to give you that information in the morning.

Mr. KELLEY. You may put in the record at this point a statement showing the character of the building you intend to build, if this money is provided, and the necessity for the additional storage space, and you may also state how you are handling that storage.

Admiral GREGORY. I will do so.

NOTE.—The storage situation at the naval station, Pearl Harbor, is very bad. The available storehouses are congested and a considerable amount of material is stored in the open. On the basis of studies made in the past two years, the station and the Bureau of Supplies and Accounts have urgently recommended extension of

age facilities, including those for general stores, metals, lumber, boats, commodities, provisions, and clothing, at an estimated cost of over \$2,000,000. It is noted that the most urgent of these needs are for a one-story building, with crane similar to that now being constructed under the \$200,000 provided in last act, which will provide for the storage of heavy industrial material, spare parts, dry stores turned in or assembled for vessels, surveyed material, etc., and addition to the paint and oil storehouse. The one-story storehouse contemplated will be 120 by 500 feet and will be provided with a 10-ton crane to handle the material. The addition to the paint and oil storehouse contemplated is a one-building of fireproof construction, 43 by 243 feet. The estimated cost of the one-general storehouse is \$200,000, and of the additional paint and oil storehouse

WATER SUPPLY EXTENSION.

KELLEY. You have an estimate of \$153,000 for water supply extension. What about that?

Naval GREGORY. That is a very important proposition for the Harbor station. The present Army water supply is from a well at Shafter, and the Navy has been utilizing a water system in which the water is brought from wells several miles away from the yard, and, with the growth of the naval station and the growth of the Army post, it is found that at the present time the water supply is insufficient for the station's needs. They have had a joint board of officers on the station, including both Army and Navy officers, and they have decided upon a plan of development. They have decided that the part of the estimated cost for which the Navy should pay is \$153,000. The War Department is also carrying a part of the extension under its estimates, which will be submitted by them in due course of time, probably during the spring. We are therefore asking for a part which falls upon the Navy, or \$153,000, and this work is prosecuted without regard to work to be done by the Army, and work is contemplated to be done later.

PRESENT WATER SUPPLY SYSTEM.

KELLEY. I think I have heard some reference to this project. Is the water brought from some considerable distance?

Naval GREGORY. Yes, sir; it is brought from wells at Moanalua, a considerable distance away, 4 miles, approximately.

KELLEY. The pipes are in, are they not?

Naval GREGORY. No, sir; they are in a part of the way, but we are not getting water at the present time from the source to which we expect to extend the mains. This is to be a new series of wells which they will put the pipes into.

KELLEY. This simply involves taking up the old piping and extending it?

Naval GREGORY. No, sir; I understand that the old pipe will remain where it is. This will be an additional system, or a system supplementary to the old system. In fact, we could not take up the old pipe until the new was installed, in any event.

KELLEY. Is there any real shortage of water?

Naval GREGORY. Since we have had the increased number of ships out there the demand has been so heavy that they have had to be in order to conserve their water supply, and they do not have enough.

KELLEY. Commander Rouzer, have you any special recollection about this?

Commander ROUZER. Yes, sir; this item was put in I remember that it was discussed. We asked, I think, for and the Army was to insert a similar amount in their bill. recall it, that was not done by the Army.

Mr. KELLEY. Have they done it this year?

Commander ROUZER. My understanding is that the Army has been submitted.

Mr. KELLEY. Is any provision made for this in the A Byrnes?

Mr. BYRNES. You cannot tell about that. There was an of \$42,000,000 in lump sum, and that estimate was cut to \$27,000,000 by the committee. Therefore, \$15,000,000 will have to away from some items. It will depend upon their allot \$27,000,000, I presume.

Mr. KELLEY. This proposition is for bringing water f springs, and it is not any harbor proposition at all. It is for drinking water and water for the vessels and for the Army there, and it is my understanding that they have not thing at all for that in the Army Bill. Is this the Ku I project?

Commander ROUZER. No, sir. This project is to bring the Aiea wells.

Mr. KELLEY. I understand that the only estimate involved a water supply from the Ku Tree Reservoir project that was eliminated by the committee. As I understand it, was no estimate at all for this water supply, or for their share.

Commander ROUZER. This would have been an estimate, or a supplemental estimate, because the water was included in the original Army estimates.

Mr. KELLEY. This piping would have to be laid clear back springs?

Commander ROUZER. Yes, sir.

Mr. KELLEY. To supply the naval station and the Army of course, the Army would have to join with the Navy.

Admiral GREGORY. I can read you a description of is outlined.

Mr. KELLEY. Just give us the salient points.

Admiral GREGORY. In brief, the general project provides an increase of a million and a half gallons daily at the station. The need for this increase is immediate. This is the driving of three 12-inch artesian wells on the Aiea station, that is now owned by the Government, to the pressure delivery line across the naval station to the Pearl Harbor Naval Station, at which point the line is made with the line supplying water to Ford Island and the Aiea.

COST OF EXTENSION AND MILES OF PIPE TO BE USED.

Mr. KELLEY. Suppose you insert in the rather concise statement of the cost of the project the number of miles of pipe or feet of pipe required, and information that will be useful in determining

Admiral GREGORY. I have all of that information here except as the miles of pipe. The estimated cost of the whole project is 6,000.

OTE.—The length of pipe line is approximately $3\frac{1}{2}$ miles.

Mr. KELLEY. I am inclined to think that you will find that the Navy has not asked for anything for this purpose at all, and that you are going ahead with one hand tied behind you.

Admiral GREGORY. The Navy's part of this is thirteen-eightieths, \$93,000, and, as we have \$40,000 available, the amount necessary to secure is \$153,000. It is likely also that we can make use of some material at Hampton Roads not in use, and if we have any material on hand that we can use, we propose to use it.

BLOCKING FOR DRY DOCK NO. 1.

Mr. KELLEY. You ask \$25,000 for blocking for Dry Dock No. 1. What do you have to say about that?

Admiral GREGORY. It appears that the blocking of the dry dock is not sufficient to take modern battleships, and we have found in the few years in all of our docks that we have had to increase the amount of blocking to provide for the larger ships.

Mr. KELLEY. Are these what they call keel blocks?

Admiral GREGORY. They are keel blocks, bilge blocks, and bilge block slides. Up to within recent years the spacing of dry dock blocking has been 4 feet center to center, but it is now found that with the large ships we are building we have to provide blocking on 6-foot centers. So additional blocking is necessary in all these docks to make them suitable for the heavier ships we now have in dock.

Mr. KELLEY. You will have plenty of blocks on the Atlantic coast or you discontinue all of this building program.

Admiral GREGORY. It is not the same kind of block they use in building work; that is soft wood, while what we have to use in a dock block is white oak; it is very rare and very difficult to find, as well as very expensive.

Mr. KELLEY. You will have plenty of blocking at the Philadelphia yard.

Admiral GREGORY. I do not know of anything that we would want to take. Blocking is something you may need on short notice, and when a ship has to be docked you must have the blocking there, and you take the blocking away from the Philadelphia yard you might as well say that dry dock is closed for all work. It is a very essential part of the equipment of a dock and you must have the blocking there and available for use when required.

Mr. OLIVER. What is the estimate for that?

Admiral GREGORY. \$25,000.

Commander ROUZER. The original estimate was \$125,000. The estimate as submitted by the station was \$125,000, but it was cut by the department because it was felt we could get along by the addition of certain keel blocks.

Mr. KELLEY. You have considered the question of transferring blocks, I suppose, from the Atlantic over there?

Admiral GREGORY. There are none available on the east coast that can be shifted.

Mr. KELLEY. Nearly all of your heavy ships will be in the Pacific?

Admiral GREGORY. Not all of them; some of the are still on the east coast and they require docking the newer ones. The fact is we are in the market to additional blocking for the dry docks at Boston and at Norfolk to modernize those docks.

Mr. KELLEY. You are in the market for what?

Admiral GREGORY. For white oak material; we are going to the purchase of that at the present time. Those two docks are up to date in regard to the blocking equipment.

Mr. OLIVER. What about the durability of your blocks and how you procure them?

Admiral GREGORY. Well, as a general thing those blocks last from 10 to 15 years—oak blocks.

Mr. OLIVER. Were not all of these docks equipped with new blocking during the war?

Admiral GREGORY. No, sir; both the Norfolk dock and the Commonwealth dock are practically new docks.

Mr. OLIVER. These are the two new docks?

Admiral GREGORY. Yes, sir; the Commonwealth Dock at Boston and the last dock at Norfolk.

Mr. KELLEY. I have some recollection of an appropriation for blocks last year. Were they for the Commonwealth Dock at Boston or on the Pacific coast?

Commander ROUZER. For Puget Sound.

Mr. KELLEY. Where did you get the money with which to purchase blocks for the Boston yard?

Admiral GREGORY. For the South Boston dock we used an available balance from the \$5,000,000 which was appropriated for purchasing and equipping the dock purchased from the Commonwealth of Massachusetts.

Mr. KELLEY. How much of a balance is left?

Admiral GREGORY. There is a very small amount; it is

Commander ROUZER. \$16,000.

Mr. KELLEY. Where do you get the money to buy blocks for the Norfolk dock?

Admiral GREGORY. There was a special appropriation for the dock at Norfolk.

Mr. KELLEY. Have you any balance?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. How much is left in that fund?

Admiral GREGORY. Our records show there is a balance of

Mr. KELLEY. How much is left in the Pearl Harbor appropriation?

Admiral GREGORY. I think that has all been closed out.

Commander ROUZER. That dock was completed in 1919.

PAVING, GRADING, AND RAILROAD EXTENSION.

Mr. KELLEY. Paving, grading, and railroad extension, What about that?

Admiral GREGORY. That is an item submitted by the Navy for the placing of paving on new areas that have been given for the continuation of the grading and for railroads which are to be built on the new areas. They submitted that report and it is exceedingly important that the work be done.

ds with regard to road work are road Central Avenue to Fourth
et, road back of 1910 Wharf, extension of First Street to Central
ue, and roads around new shops.

r. KELLEY. How much is for paving?

dmiral GREGORY. It is not divided; it is all in one item of
000.

r. KELLEY. You do not know how much is for paving, how much
grading, or for railroad extension?

dmiral GREGORY. They have not divided the amounts.

r. KELLEY. How much railroad extension are you going to make?

dmiral GREGORY. They asked for \$75,000, but that has been cut
he budget officer of the Navy already, thinking that it was hardly
sable to ask for more than \$38,000, so we could not check the
000 with the original estimate from the yard, anyway. We
deliberately cut it in half over the estimate submitted by the

r. KELLEY. You do not know how much paving, grading, or
much railroad extension is provided for?

dmiral GREGORY. We would have to tell them to recommend in
t way they could use the \$38,000 to best advantage, and I think
ight to be put up to the station as to how they could best use it,
iew of the fact that we are cutting in two the estimate submitted
he station.

r. KELLEY. When they submitted their estimate did they not
ize it?

dmiral GREGORY. It was not itemized.

r. KELLEY. That is not a very good way to get appropriations.

r. BYRNES. You mean there is nothing to indicate how much of
is to be spent for paving?

dmiral GREGORY. I find a note here to the effect that the railroad
& alone is estimated at \$38,000, so that would leave the balance
for the grading and paving.

r. BYRNES. \$37,000?

dmiral GREGORY. Yes, sir; it would appear that \$38,000 is their
nate for the railroad work. The department has cut the station's
nate from \$75,000 to \$38,000, so presumably they are limiting
to the railroad work alone, and it could be called railroad exten-
if you chose.

r. KELLEY. \$38,000 is just for the track and ties?

dmiral GREGORY. And whatever is to be done in building it.

r. KELLEY. You do not know how many miles are to be built?

dmiral GREGORY. No, sir. I will insert information in detail as
ae work contemplated under the \$38,000.

Pearl Harbor, paving, grading, and railroad extension.

oad to Puloa station, 1,500 by 22 feet, at \$3 square yard.....	\$11, 100
ilroad connection to new machine shop, 1,700 feet, at \$4 per linear foot..	6, 800
oads around and to machine shop and acetylene plant, 2,110 by 20 feet, at \$3 square yard.....	14, 100
ilroad connection to one-story storehouse, 1,500 feet, at \$4 per linear foot.....	6, 000
Total.....	\$38, 000

Mr. KELLEY. You are satisfied it will take \$48,000 work?

Admiral GREGORY. Yes, sir; that would be the cost with timber construction.

NAVAL STATION, OLONGAPO, P. I.

Mr. KELLEY. You say you have abandoned Olongapo?

Admiral GREGORY. I want to get in the statement that is reported that this pier is beyond the condition of ordinary that it needs entire rebuilding.

Mr. KELLEY. You mean the one about which we have talking?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. And I understand everything comes out of

REQUESTED TRANSFER OF OLONGAPO ESTIMATES TO CAVITE

Admiral GREGORY. It comes out as Olongapo, but it and I think you have a communication from the Department requesting that these two items be transferred to Cavite. One item of \$45,000 for pontoon and one is an item of \$55,000 for plant improvements. There is on file a request from the Department to have these items transferred to Cavite on account of the condition there.

Mr. KELLEY. I have not had any notice of that.

Mr. SMITH. The letter dated February 2, 1922, from the Director of the Budget.

FEBRUARY 4

Sir: Subsequent to the preparation of the Budget for 1922 it was determined that all industrial activities at the naval station, Olongapo, P. I., be closed except for necessary caretakers, and that work be transferred to Cavite for repairs to vessels conducted at the naval station, Cavite. This transfer of the appropriations estimated for under the appropriation for the naval station, Olongapo, P. I., to be made. Owing, however, to the fact that the naval station, Cavite, it is considered of the utmost importance that the naval station, Olongapo, be appropriated for. The estimate of \$45,000 for a pontoon contemplates the construction of a steel pontoon for a 20-ton floating derrick now located at Olongapo, a wooden pontoon which was condemned by survey in October, 1921. The structure and machinery of the derrick are in good condition. The results in large savings of time and money in the handling of cargo, as it avoids the danger of accident by the use of improvised machinery. The \$55,000 estimated for power-plant improvements at Cavite is an expenditure at Cavite for the installation of turbo-generator switchboard and a set of electrolytic lighting arresters which will be taken from the Department surplus stock and delivered to the naval station, Cavite, and for motor generators or rotary converters to change the current direct in order to utilize the product with the present machinery for the use of direct current. The present Cavite machinery is hand machinery sent to the station sometime ago, which is in need of constant repairs.

It is, therefore, respectfully requested that the necessary changes be made from the appropriation bill the two items under the appropriation for the naval station, Olongapo, P. I., and to have the same inserted under the appropriation for the naval station, Cavite, P. I.

The foregoing change involves no increase in the total of the Naval Establishment.

Respectfully yours,

The DIRECTOR OF THE BUREAU OF THE BUDGET,
Washington, D. C.

KELLEY. He did not communicate it to us. What is a pon-

miral GREGORY. The pontoon is the floating structure upon which this derrick is constructed and it is used for handling heavy loads; it is a floating crane; the pontoon is the base structure, the floating structure. The superstructure itself, the crane, has been ordered and is on hand; the material for the pontoon itself is out. It is really the purpose to have this pontoon and the crane together and then after completion it will be towed to Cavite and placed there, it being a floating structure.

TREATY AFFECTING SOUTH SEA NAVAL BASES.

KELLEY. Under the terms of the treaty are we authorized to do this?

miral GREGORY. I do not think that this is anything which is authorized by the treaty; it is simply a weight-handling appliance as nothing to do with the defenses or supplies.

KELLEY. You think we could put in all the new equipment we need at any of these places?

miral GREGORY. It would not permit all the new equipment we would like to have, but I think it would permit this equipment.

KELLEY. I will read this from the treaty:

"maintenance of the status quo under the foregoing provisions implies that no fortifications or naval bases shall be established in the territories and possessions included; that no measures shall be taken to increase the existing naval facilities for repair and maintenance of naval forces, and that no increase shall be made in the coast defenses of the territories and possessions above specified."

What about that, Admiral?

miral GREGORY. This was work that was practically begun some time ago, and it is not a new item; it is the renewal of the floating pontoon for the lifting derrick which was authorized in previous years. I can refer to the act of June 29, 1906, if you have it here.

KELLEY. This is also provided:

"No restriction, however, does not preclude such repair and replacement of worn-out weapons and equipment as is customary in naval and military establishments in times of peace."

PONTOON AT CAVITE AND OLONGAPO.

Do you have a pontoon at Cavite?

miral GREGORY. Yes; we have had a wooden pontoon there, which was surveyed and condemned in 1920. They started the construction of a steel pontoon at Olongapo some time ago, but the project was never completed, and this is really to complete a project which was authorized some time ago.

KELLEY. You have a power plant at Cavite, have you not?

POWER PLANT AT CAVITE.

miral GREGORY. There is a small power plant there, but even when the plant was installed second-hand machinery was used, and now practically on its last legs. It is our desire to have renewals of the generators and engines that have been worn out; so it is intended to have the item transferred from Olongapo to Cavite.

Mr. KELLEY. I do not know whether that would be a violation of the treaty or not; probably not.

Admiral GREGORY. I do not think it would.

DATA RESPECTING POWER PLANT.

Mr. KELLEY. It is a replacement of worn-out machinery of which you have had before?

Admiral GREGORY. There are renewals and replacement of some transformers and a rotary converter required for the reason that we are changing from a direct current to an alternating current plant. All alternating current equipment except an air compressor is at Cavite.

CAVITE.

PRESENT.

Installation (worn out): Four 100-kilowatt engine generators (practically junk, worn out), one 200-kilowatt engine generator (obsolete and inefficient); total, 600 kilowatts direct current.

Five 80-horsepower Scotch marine boilers and one 150-horsepower B. & W. boiler; total, 550 horsepower (worn out and very inefficient; maintenance unusually high).

One 1,200 c. f. m. air compressor (very poor condition, obsolete, worn out).

PROPOSED.

Replacement (all equipment transferred) of air compressor now at Cavite by transfer. One 500-kilowatt alternator with 300-kilowatt converter and transformers and necessary direct current; 500 kilowatts alternating current and 300 kilowatts direct current.

One 500-horsepower Heine boiler obtained by transfer.

One new 1,200 c. f. m. air

Estimated cost.

Building changes for equipment.....	
Removal of old equipment.....	
Installation turbo alternator (transferred).....	
Installation rotary converter (transferred).....	
Installation one 500-horsepower boiler (transferred).....	
Purchase and installation one 1,200 c. f. m. air compressor.....	
Purchase and installation 2 condensers, with pumps.....	
Purchase and installation piping.....	
Relocation and installation flashing pump now in old submarine base power plant in C. P. P.....	
Electric wiring and installation existing switchboard panels.....	
Instruments.....	
Total.....	

Mr. KELLEY. You see, if we go into this and set it in violation of the treaty right away, it is very similar to what other nations, similarly situated, to say, "You built a power plant at Cavite; you put a pontoon out there, and we are only doing just what you have done. We probably we had better leave this situation in the same things clear up a little.

URGENCY OF REPLACING CAVITE POWER PLANT AND PONTOON.

miral GREGORY. What I greatly fear is that if we do not get you are going to have a station without any means of getting light or power whatsoever and that is a serious situation. I do not like to face that situation.

- KELLEY. That is, if you do not do it within a reasonable time.

miral GREGORY. Yes. The condition, while not anything like serious as at Mare Island—the condition we were describing this morning—is a serious condition.

- KELLEY. We have not had any estimate for making these improvements at Cavite.

miral GREGORY. I think one reason, in regard to the pontoon, is that they have been assembling material heretofore, and it is now ready to be assembled, and in regard to the plant at Cavite it is because of the additional load put upon that plant by reason of the use of Olongapo. The matter becomes urgent for Cavite, because before Olongapo has really been considered superior to Cavite, Cavite was superior as a naval station, but by reason of its being outside the Army defenses it was decided by the Navy Department that it would not be feasible to keep it running; consequently we are transferring everything to Cavite, which is really not equipped to do the work, and that is why we want the appropriation transferred to put the station in decent shape.

ABANDONMENT OF OLONGAPO AS NAVAL BASE.

- KELLEY. Have you power plant facilities at Olongapo?

miral GREGORY. We have some power plant facilities. This station was originally put in for the renewal at Olongapo, but now we are not going to have anything at Olongapo at all.

- KELLEY. You might change your mind about that and go back to Olongapo.

miral GREGORY. If we did, then we would need the money for Olongapo; the renewal is needed no matter which place is kept, but under the treaty we could not reopen Olongapo.

- KELLEY. What ships are out there?

miral GREGORY. I can not tell you the names of the ships that are out there, but it is the Asiatic Fleet under Admiral Strauss, and the fleet bases at that station.

NAVAL AMMUNITION DEPOT, IONA ISLAND, N. Y.

REPAIRS TO SOUTH DOCK.

- KELLEY. You are asking \$15,000 for repairs to the south dock of the naval ammunition depot, Iona Island, N. Y. What has happened to the dock there?

miral GREGORY. That is a dock which has worn out in long service, and it is represented to me by the Bureau of Ordnance that it is a repair it is necessary to make.

- KELLEY. How much of a dock is this?

miral GREGORY. It is a dock that is 300 feet long and about 25 feet wide. It has been reported in the annual inspection as being in

poor condition and that its repair, on the basis just mentioned, is necessary.

Mr. KELLEY. What will a dock like that cost new?

Admiral GREGORY. That amount is practically for an entirely new dock.

Mr. KELLEY. Why do you not repair it out of the other fund and let it go this year? These are pretty hard times, Admiral.

Admiral GREGORY. We also have hard conditions to meet.

Mr. KELLEY. Is it so bad you could not repair it at small cost?

Admiral GREGORY. It has been reported to me, through the Bureau of Ordnance, that the dock is one that is needed so constantly that it is necessary to keep it in safe condition and that they thought it ought to be repaired.

Mr. KELLEY. They must have another dock there if they are to rebuild this one.

Admiral GREGORY. There is another dock called the north dock.

Mr. KELLEY. There must be another one there, because this is "Repairs to South Dock." There must be a north dock, an east dock, and a west dock. I suppose in due course you will visit most of the public works, will you not, Admiral?

Admiral GREGORY. I hope to visit them in order to find out the urgency for all of these things.

Mr. KELLEY. Do you not think most of these can well go over and you have had time to inspect the necessities at each place?

Admiral GREGORY. I understand that in the preparation of the estimates that idea has been kept uppermost. In the first place, instructions were given to confine recommendations to those things that were considered immediately urgent; then the Navy Department, in the preparation of its budget, went over all of these items again from its point of view and cut them very seriously, so that they have gotten to the point where I have reason to believe there is not as much requested but what is really needed.

Mr. KELLEY. That is a bad frame of mind to get into. There is probably not anybody in the Navy Department now who knows by their own knowledge whether these are needed or not.

Admiral GREGORY. Well, when you have a report that 50 per cent of the piles of a certain pier have rotted through, as I just mentioned in the report on this structure, I can realize without looking at the structure that it is in pretty serious condition.

Mr. KELLEY. But you have not seen it?

Admiral GREGORY. No, sir.

Mr. KELLEY. And you have not seen it, Colonel Roosevelt, the naval ammunition depot at Iona Island, N. Y., where they have \$15,000 for repairs to south dock?

Colonel ROOSEVELT. No; but we will be able to find in the Department some one who has seen it, and I believe the admiral will make a direct report.

Mr. KELLEY. We have the report but, of course, the officers have not really went to see the defects and the question might be whether it should be rebuilt or merely repaired. They are asking for an estimate which will practically rebuild the dock, \$15,000.

Colonel ROOSEVELT. I believe we have in the department officers who have been to these various stations in almost every instance fairly recently, and they are consulted about these matters.

give you this particular thing from my own knowledge, and, of course, never are we able, in making up our estimates, to have each particular place inspected by officers who will appear before you, because we are such a widely flung organization.

Admiral GREGORY. I might also say this, that when an officer who is a technical officer, a civil engineer, reports to the bureau, as he has reported here, that the dock is in such poor condition that unless it is put out of commission and repairs made in a few months it will be to be declared unsafe and impossible of use, I would rather take that view—

. KELLEY (interposing). It hardly seems possible for it to get that way in a year.

Admiral GREGORY. It has not; it has been built for a great many years.

. KELLEY. But your predecessor never made any such report, is that so?

Admiral GREGORY. It was reported last fall and has just come to me. As I started to say, I would accept a report from an engineer of more value than the reports of a hundred nontechnical officers who may have seen the thing.

NAVAL AMMUNITION DEPOT, LAKE DENMARK, N. J.

STANDPIPE AND ADDITION TO WATER MAIN.

Mr. KELLEY. For the naval ammunition depot at Lake Denmark, N. J., you are asking \$5,000 for addition to water main and \$21,000 for standpipe. What is the matter with the water supply at Lake Denmark?

Admiral GREGORY. That is a question of fire protection. There has been quite an extension of the plant at the ammunition depot and this is for the purpose of increasing the fire protection of that plant.

. KELLEY. How much of an extension has been made there?

Admiral GREGORY. The project consists of approximately 2,000 feet of 4-inch cast-iron water pipe with four hydrants, and the building of a standpipe.

. KELLEY. I say, what improvements have been made there in the way of increasing the depot facilities?

Admiral GREGORY. They have built from time to time additional storage places for explosives.

Mr. KELLEY. Did you build something there last year?

Admiral GREGORY. I think not last year, but during the war, and I did not provide the necessary fire protection for it at the time it was built.

. KELLEY. How do you happen to be making improvements at the Bureau of Ordnance? I thought they attended to all their affairs?

Admiral GREGORY. On public-works construction, I think that they are going to have more of a hand in that hereafter than before.

. KELLEY. Where do they get the money for repairs?

Admiral GREGORY. They have an appropriation.

REASONS FOR BUREAU OF YARDS AND DOCKS DOING MAJOR REPAIRS.

Mr. KELLEY. Ordnance and Ordnance Stores takes care repairs?

Admiral GREGORY. Yes, sir. This is one item that they do contemplate spending their appropriation for and it should be considered somewhat in the same light as Maintenance, Yards and Docks.

Mr. KELLEY. If they can build an armor plant at Washington, Va., costing twenty-two or twenty-three million dollars, they ought not to have much trouble about a little thing like this.

Admiral GREGORY. My impression is that they had a special appropriation.

Mr. KELLEY. No; they never had a special appropriation.

Admiral GREGORY. That was in war time, when there were special appropriations for general purposes.

Mr. KELLEY. The same laws are on the statute books now as had then, except what changes we made last year.

Admiral GREGORY. I think this shows a very healthy condition.

Mr. KELLEY. I do not think that follows at all. They are getting the money out of both places. They either ought to do the repairs or you ought to make them. I have understood that the ordnance people did not want your people around them, and they do not want them around ordnance ammunition, and they do not want ordinary workmen about these places. That is the reason they are set up for making their own repairs. We do not like to have them mixed up. We must have either one policy or the other. I cannot tell whether to allow each specific sum or not.

Admiral GREGORY. I would strongly advise putting it all in one result will be that it will divide the work among the various bureaus instead of concentrating the work under the Yards and Docks, which I think should be the case.

Mr. KELLEY. You think when it is new construction you should do it?

Admiral GREGORY. I think that we should handle the new construction as well as any major repairs.

Mr. KELLEY. What do you say, Colonel?

Colonel ROOSEVELT. I know in some instances your statement of the case is accurate as to the past situation. The work of their own, but in general there is no question but that the Yards and Docks should do the new construction work and the repairs. The debate has centered around what are major repairs. Unquestionably certain things have been done occasionally where an extension was considered as a repair. If the Bureau of Yards and Docks functioning, it ought to do the new work.

Mr. KELLEY. But in the case of repairs you think that the Ordnance should do the work?

Colonel ROOSEVELT. That is a horse of a different color. It is on the size of the repair.

AMMUNITION DEPOT, FORT LAFAYETTE, N. Y.

MAGAZINE ROOF.

Mr. KELLEY. The next item is "Ammunition depot, Fort Lafayette, N. Y., magazine roof, \$10,000." That naturally does not come to you?

Admiral GREGORY. I think so, sir. I consider that a major repair. We all read only recently of a roof in this city collapsing because it was not properly built. When you come to structures such as magazines, you certainly should have roofs which will not fall in.

Mr. KELLEY. Magazines are generally little one-story shacks?

Admiral GREGORY. This is a pretty good roof.

Mr. KELLEY. Up there they used to build them out of stone until they learned better. Now they build them out of light material.

Admiral GREGORY. I would like for you to take a glance at the plan of that building. You will see how complicated it is. It is a big building. A roof to go over a building like that is not a minor repair.

Mr. KELLEY. Where is it?

Admiral GREGORY. At Fort Lafayette.

CONDITION OF PRESENT ROOF AND MAGAZINE.

Mr. KELLEY. What is the matter with the roof now?

Admiral GREGORY. It is leaking. It will have to have new framing walls and a new roof surface.

Mr. KELLEY. That seems to be quite a building?

Admiral GREGORY. It is.

Mr. KELLEY. What are the sides of the building?

Admiral GREGORY. The sides are of masonry construction.

Mr. KELLEY. An explosion there would kill everybody within a reasonable distance on account of the flying stone?

Admiral GREGORY. I would not want to be near it.

Mr. FRENCH. Is the whole space covered over or is that a large court?

Admiral GREGORY. It is a court. That [indicating] is a section through one of the side walls.

Mr. KELLEY. Is it an old building?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. I should think that you could build a magazine better than that for \$10,000?

Admiral GREGORY. We might be able to, but they need an ammunition depot there.

Mr. KELLEY. What do you think about this, Colonel? It is a magazine building made of masonry. I notice all the new ones are made of light material.

Colonel ROOSEVELT. The doctrine at present is that they should not be built of masonry, because masonry furnishes flying fragments in case of an explosion. Whether you could build a new building for \$10,000 which would serve the purpose, I do not know; I do not think you could.

Admiral GREGORY. No; I do not think so.

Colonel ROOSEVELT. I do not know how many buildings you could build for \$10,000. I should think that it would cost a great deal more. I do not know how large this is. I can not tell you what

the scale is and how complicated it would be. I would have to look over that long before I would be prepared to say that you could place it for \$10,000.

Admiral GREGORY. The ammunition depots for ordnance are about \$100,000. It depends on the size. That is a building containing 50,000 square feet of floor here [indicating].

Colonel ROOSEVELT. And how much here [indicating]?

Admiral GREGORY. It is a two or three story building and it would be hard to say.

Mr. KELLEY. The roof leaks?

Admiral GREGORY. And it needs rebuilding to make it safe.

NAVAL AMMUNITION DEPOT, CHARLESTON, S. C.

MAGAZINE FOR WAR HEADS.

Mr. KELLEY. The next item is, "Naval ammunition depot, Charleston, S. C.: Magazine for war heads, \$36,000."

Colonel ROOSEVELT. That is for the war-head torpedoes. They can not be kept with the others, and this is very important.

Mr. KELLEY. If you do not keep the destroyers down there, do you need the depot there?

Colonel ROOSEVELT. We will need a depot somewhere and I would want to check up as to whether we have another available depot.

Mr. KELLEY. You might carry the torpedoes there in any event.

Colonel ROOSEVELT. We might carry them in storage.

Mr. KELLEY. How large a building would you put up there?

Admiral GREGORY. That is a building 50 by 108.

Mr. KELLEY. Please state again the necessity for that?

Admiral GREGORY. That is for the purpose of storage of torpedo warheads. That is a station for the destroyers.

Mr. KELLEY. Have they any storage there to take care of the torpedoes? They must have a lot of empty shops which they could use?

Admiral GREGORY. The ordnance material would not be in a section devoted to storage.

Colonel ROOSEVELT. It can not be.

Mr. KELLEY. They have to have a separate place?

Admiral GREGORY. Yes, sir; with special equipment, racks, and cranes.

Mr. KELLEY. How are they getting along there now? Do they have all the destroyers there?

Admiral GREGORY. There will be before the end of the year a great many destroyers there. They are gradually putting them of commission at a rapid rate and it is necessary to remove and store the war heads when this is done.

Colonel ROOSEVELT. They would have to store certain store combination which they consider highly dangerous.

NAVAL AMMUNITION DEPOT, PUGET SOUND, WASH.

FUSE AND DETONATOR HOUSE.

Mr. KELLEY. The next item is, "Naval ammunition depot, I Sound, Wash.: Fuse and detonator house, \$8,000."

miral GREGORY. That is an additional building at the ammunition depot at Puget Sound. They are constantly enlarging that by reason of the increasing number of ships that is based on it and that is simply an additional building called for to meet the increasing needs.

NAVAL AMMUNITION DEPOT, MARE ISLAND, CALIF.

ADDITIONAL STORAGE FACILITIES.

. KELLEY. The next item is, "Naval ammunition depot, Mare Island, Calif.: Additional storage facilities, \$100,000." I do think we can carry that. Is this an additional building?

miral GREGORY. It is an additional building; yes, sir.

. KELLEY. Please tell us the necessity for it.

lonel ROOSEVELT. The necessity for that, again, is the increased number of units that is being based out there and the necessity for having their adequate war supply of ammunition.

. KELLEY. Having more ships in the Pacific, you have to have more places for the storage of shells?

lonel ROOSEVELT. Yes, sir.

miral GREGORY. This has been requested very strongly by the Bureau of Ordnance, which realizes the conditions to be very cramped and cramping more, which is unsafe.

. KELLEY. Can not they store shells with perfect safety in ordinary buildings, cheap buildings?

miral GREGORY. They are of light construction, but they have to be strong enough.

. KELLEY. And away from the rest of the plant?

miral GREGORY. Yes, sir; they are in a separate group of buildings; the ammunition depots.

. KELLEY. How far away from the shops are these shells stored?

miral GREGORY. In the neighborhood of two or three miles.

lonel ROOSEVELT. That is what complicates the situation, Mr. Kelley, because two or three times I have said myself, "Why do not you use this building?" and I have found it was too close to the shops and inhabited or being used.

NAVAL AMMUNITION DEPOT, PEARL HARBOR, HAWAII.

ADDITIONAL STORAGE FACILITIES.

. KELLEY. The next item is, "Naval ammunition depot, Pearl Harbor, Hawaii: Additional storage facilities, \$80,000." Is that a new building?

miral GREGORY. That is an extension of storage; it is presumed to be a new building.

. KELLEY. That makes a difference. If it is an addition to an existing building we can consider it. If it is a new building, we cannot.

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miral GREGORY. Yes, sir.

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Colonel ROOSEVELT. That is separate?

Imiral GREGORY. Yes, sir.

Mr. KELLEY. It is for the same general purpose of storing shells and other ammunition out there?

Admiral GREGORY. We now need the balance of the in order to meet the obligations which will come on our force.

Mr. KELLEY. How much of a contract have we for

Admiral GREGORY. We have one contract alone of \$941,000.

Mr. KELLEY. What was the limit of cost on this improvement?

Admiral GREGORY. The act of July 11, 1919, authorized a limit of cost of \$1,500,000.

Mr. KELLEY. And we have spent \$1,000,000 there?

Admiral GREGORY. I can say this, that we have overobligated present appropriations by the sum of \$413,500, but that is within the limit of the appropriation so the \$425,000 needed is not only the balance of the appropriation but also to meet obligations under the present contract.

Mr. KELLEY. You have obligated \$1,113,000. You have \$700,000. That would leave \$413,000 instead of \$425,000.

Admiral GREGORY. We are now \$413,000 overobligated.

Mr. KELLEY. Why do you want \$425,000?

Admiral GREGORY. That is for the completion of the small contingent items that we need for finishing up, putting finishing touches on that work.

Mr. KELLEY. Does that complete this improvement?

Admiral GREGORY. That completes this improvement as far as we propose to push it.

Mr. KELLEY. The contract is now in process of execution, is it?

Admiral GREGORY. Yes, sir; the work is going on. It has stopped this minute, because they stopped during the winter, when the thing froze. They will start in the spring with the full effort, completing it the next fiscal year.

Mr. KELLEY. Do you know anything about this place?

Admiral GREGORY. I have not been there.

Mr. KELLEY. Have you been there?

Commander ROUZER. No, sir.

MARINE BARRACKS, SAN DIEGO, CALIF.

FURTHER DEVELOPMENT OF BASE AND PURCHASE OF LAND.

Mr. KELLEY. The next item is, "Marine Barracks, San Diego, Calif., \$500,000." Will this finish up that job?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. These contracts are outstanding and the work is going forward?

Admiral GREGORY. It is going on right along.

Mr. KELLEY. When will this work be finished?

Admiral GREGORY. This next fiscal year, we expect to finish it.

Mr. KELLEY. We understand about the little addition. Lejeune told us about that the other day. How many men can it accommodate?

Admiral GREGORY. One thousand eight hundred men.

NAVAL HOSPITAL, SAN DIEGO, CALIF.

KELLEY. The next item is, "Naval hospital, San Diego, \$500,000." Have you begun that naval hospital?

airal GREGORY. Oh, yes; that is under way.

FRENCH. It is not one structure; there are many small build-

airal GREGORY. Yes, sir; a number of different wards.

KELLEY. How much have you spent there?

airal GREGORY. We have three contracts out there aggregating 1 of \$855,000, a little over. That work is about 99 per cent eted; it was at the end of February. Now, there is other work. ould be done—building the additional wards.

KELLEY. How much money have you had altogether; what our first appropriation?

airal GREGORY. \$750,000, allotted from "Hospital construc- act of July 1, 1919.

KELLEY. And \$500,000 last year?

airal GREGORY. Yes, sir.

KELLEY. You want \$500,000 this year, making \$1,750,000?

airal GREGORY. That will complete the work.

KELLEY. Why not change that language from "To continue" o complete"?

airal GREGORY. We do not advise any change in the wording ating statutes, although in so far as the bureau is aware it will e necessary to ask for additional funds to complete, provided ount requested is granted.

reason for that was that heretofore there has been a complete ition there to cost \$1,975,000.

KELLEY. That was the original limit?

airal GREGORY. Yes, sir. This \$500,000 that we have requested s year would bring up the total to \$1,750,000.

KELLEY. The cost of material has gone down so that this ,000 would build more hospital facilities than you contemplated the original estimate of \$1,975,000?

airal GREGORY. Of course, we are taking advantage of the d costs, and, furthermore, there have been simplifications of ginal plans which have enabled us to get more for our money.

EVANS. The first appropriation was an allotment?

mander ROUZER. Yes, sir; \$750,000 allotted from "Hospital ction," act of July 1, 1919.

KELLEY. How many patients will you accommodate now when t this \$500,000?

airal GREGORY. The number of beds provided by the construc- retofore approved is 150, and the number that would be cov- y this additional appropriation is 200, making a total of 350.

KELLEY. This is quite a hospital, with 300 beds costing 000.

airal GREGORY. That includes all the service buildings, power laundry, and things of that kind. It must be considered e are just going into Southern California with a number of ery big stations, and the need for hospital service on the west s very great.

SUBMARINE BASE, SAN PEDRO, CALIF.

Mr. KELLEY. You have an item of \$100,000 for submarine at San Pedro, Calif.: Has that been authorized by law?

Admiral GREGORY. That has not been authorized.

Mr. KELLEY. And probably will not be.

Admiral GREGORY. This is for the purchase of land and its development.

SUBMARINE BASE, PEARL HARBOR, HAWAII.

GRADING, RAILWAY, ETC.

Mr. KELLEY. You have an item of \$25,000 for grading, rail and so forth, at the submarine base at Pearl Harbor. What that, or how much is estimated for the grading, how much for railroad, and how much for the "so forth"?

Admiral GREGORY. I find that that has been put in as one sum of \$175,000. That was the estimate from the station, and has been cut, as you will see, to considerably less than one of that amount by the department, or it has been cut down \$25,000.

Mr. KELLEY. I wonder what they cut out.

Admiral GREGORY. I imagine that would refer to the railroad construction, but I am not able to give you the details or the figures is quite customary, as in the other development we touched on moments ago, where the railroad work was the work approved—

Mr. KELLEY (interposing). On that amount of information I we had better cut it out.

Commander WARREN. In regard to that station, a group of marines were sent out there, and an officer was sent out to command this station. Before he started out, he said to me, "Do you what is out there?" I said, "Yes, there is not anything." I said to him, "You had better take your station out with you." I was for about a week for him through the department, and the result that he took his submarine station out with him on a collier, practically built the whole thing himself. Now, I understand they are trying to get some sort of railway facilities.

Mr. KELLEY. We can not appropriate money on such general information as that. We want to know how much grading is to be how much railway is to be built, etc.

Commander WARREN. I do not know the details.

Mr. OLIVER. You do not know whether it would complete the

Mr. KELLEY. We do not know what it is for.

Mr. OLIVER. Has Yards and Docks any further information regard to this?

Admiral GREGORY. We probably have some information at a bureau on this item, and I would like to be permitted to submit a description of it in the record. I have no doubt, in view of the estimate of \$25,000, that it would certainly be desirable to proceed for it. I have no doubt that the \$25,000 is absolutely essential to start the work.

Mr. KELLEY. They have tenders for the submarines out there, have they not?

Admiral GREGORY. Yes, sir.

. OLIVER. I think it is important that you put that submarine in good condition. I have always felt that it was an important marine base. Now, whether you have sufficient data here to let the committee in making an appropriation for work that you are not prepared to state is important is questionable, but I recognize the importance of providing for a submarine base out there. I think the most important, and I would like for you to look it up and see what information you can supply us.

Admiral GREGORY. I think we will be able to give you some information on that and I will insert it.

NOTE.—It is contemplated providing extensions to the present track system to new piers for which an appropriation was made during the fiscal year 1922, approximately 750 linear feet of additional track being required, at an estimated cost of \$25,000.

There is at the present time but one road leading from the entrance of the harbor to the water front with a small section of road along the water front.

It is contemplated providing approximately 4,000 square yards of pavement to the water front and around the various groups of buildings at an estimated cost of \$12,000. The balance of \$8,500 is contemplated grading along the northern part of the submarine base in the vicinity of the inboard ends of the new piers, part of this grading being necessary in conjunction with the railroad and road work.

It is believed that the item "Grading, railway, etc., \$25,000, submarine base, Pearl Harbor, Hawaii," should read "Grading, railway and highway development, submarine base, Pearl Harbor, Hawaii."

. KELLEY. How far is this base from the navy yard?

Admiral GREGORY. I do not know.

. KELLEY. You do not know what is there?

Admiral GREGORY. No, sir; I have never been there myself.

Under ROUZER. It is near the yard at Quarry Point.

. KELLEY. What do you have there now in the way of shops, docks, etc.?

Admiral GREGORY. There must be 2 or 3 piers and about 15 or 20 buildings. There are apparently barracks and shop buildings, but the nature of them does not appear here.

Commander WARREN. It was salvaged building material that was taken out on this collier.

FOR BATTERY STORAGE AND OVERHAUL BUILDING.

. KELLEY. For battery storage and overhaul building, you estimate \$64,000.

Admiral GREGORY. That is an estimate that was submitted a year ago and it is now renewed. The Bureau of Engineering makes a strong recommendation for the building of the building.

. KELLEY. What is the difference between battery storage and battery charging?

Admiral GREGORY. These things are usually done either in the building or in adjacent buildings. The charging station is where the batteries are charged, requiring service connections or special connections for that purpose. The storage simply means that the batteries ashore to be stored until such time as they may be put into use. The two things really go together—that is, the battery storage and overhaul building.

. KELLEY. You take these batteries out of the submarines?

Admiral GREGORY. It might be called a battery storage building. We take them out of the submarines and store them or recharge them before issuing them again.

Mr. KELLEY. Is this a new building?

Admiral GREGORY. It is a remodeling and extension of building. This is required at the submarine base. Estimate was \$75,000 a year ago, but it has been cut to reason of reduced costs.

Mr. KELLEY. It would not be in addition to the battery installation building that we authorized last year?

Admiral GREGORY. No, sir; it would not.

Mr. KELLEY. This is a sort of shop in which batteries hauled and stored?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Has the contract been let for this battery installation?

Admiral GREGORY. That is being built, and all of that has been allotted. It has all been obligated so far as the concerned.

Mr. KELLEY. How much of that money has been spent?

Admiral GREGORY. The entire amount has been obligated.

Mr. KELLEY. How much has been spent?

Admiral GREGORY. We have no recent report of expenditure.

Mr. KELLEY. Commander Warren, what about this installation? In the bill last year we authorized a battery installation.

Commander WARREN. Yes, sir.

Mr. KELLEY. This year you ask for a battery storage hauling building. Why can you not add something to the building? Would it not be more economical?

Commander WARREN. If you did, it would not make sense.

Mr. KELLEY. Do you have them charged at one place and hauled at another? Why not have them together?

Commander WARREN. The station has a small power plant. The wires lead down to the boats.

Mr. KELLEY. Where is the installation?

Commander WARREN. That is in the building. When you have to overhaul a storage battery, you take it out of the building, carry it to a building. You must have a certain amount of stock which must be racked and cared for and overhauled in all weather. That is true, because the plates are exposed. There is a certain amount of chemicals involved. When a man wears a pair of shoes around a battery they get worn in a few weeks, due to the action of the sulphuric acid on the batteries. We must have concrete floors for the batteries.

Mr. KELLEY. In charging the batteries, you have them up with the wires?

Commander WARREN. Yes, sir.

Mr. KELLEY. The installation is simply an electric building on shore?

Commander WARREN. Yes, sir; it is a power plant.

Mr. KELLEY. This is a building of a different type than the one overhauled and stored?

Commander WARREN. Yes, sir; but it could be used as a storage building if they wanted to do that.

KELLEY. If they are different kinds of buildings it would not addition.

airal ROOSEVELT. It would simply be two buildings grouped together.

airal GREGORY. It would appear to be one proposition by reason of the fact that last year in the estimates they called for \$200,000, and it was cut to \$50,000.

KELLEY. That would not necessarily follow.

airal GREGORY. This would appear to be the completion of a project they had in mind a year ago.

DESTROYER BASE, SAN DIEGO, CALIF.

STORAGE OF WAR HEADS AND TORPEDOES.

KELLEY. The next item is, "Destroyer base, San Diego, Calif.: storage for war heads, \$60,000; storage for torpedoes, \$140,000; \$200,000." That is not authorized by law, and we will not do it without that.

NAVAL AIR STATION, SANDY POINT, WASH.

The next item is for a naval air station at Sandy Point, Wash. That is not authorized by law.

airal GREGORY. No, sir; that is not authorized.

NAVAL BASE, ALAMEDA, CALIF.

KELLEY. The next item is for a naval base at Alameda, Calif., that is not authorized by law.

airal GREGORY. No, sir.

KELLEY. All of the items on page 122 go out.

MAINTENANCE, REPAIRS, AND PRESERVATION, BUREAU OF YARDS AND DOCKS.

KELLEY. For maintenance, repairs, and preservation, Bureau of Yards and Docks, you are asking \$6,750,000, as against your current appropriation of \$7,500,000.

Did you make a distribution of that by yards? I understand it is not hard and fast but it is what you base your totals on.

airal GREGORY. This sum of \$6,750,000 is not based on the needs, nor is the sum total the amount needed at each individual yard; it is simply a tentative cut from the amount of the appropriation made last year, and that is the only defense there can be for this figure. We know it costs a great deal more than that to maintain in the various navy yards, but we simply spend to the limit and then the balance of the work we get in other ways.

KELLEY. What do you mean by that?

airal GREGORY. A great deal of the plant is maintained by charging it up to the indeterminate expense account instead of direct appropriation. It is a very difficult matter for us to tell how much is actually expended for maintaining the various navy yards because of the accounting system being such that you can not tell.

It has been explained, I understand, in former years so it pretty well understood that the appropriation, is sufficient for the functions which are placed by it upon the Yards and Docks.

Mr. KELLEY. That would depend a good deal on whether were operating or not.

Admiral GREGORY. That would not make a great deal. It would depend more on the value of the things to be rather than upon that.

Mr. KELLEY. Let us see about that. You bear a expenses of the power used outside of the shops? You tion of the power which is used outside of the shops, do you?

Admiral GREGORY. At industrial yards it is practice. We take the cost of lighting the yard that is charged to not have to take the cost of very much of the power that for the reason that we do not have much productive which that power is applied. That is nearly all a the appropriations for repairs to ships; but, of a operate stations the charges generally are taken.

Mr. KELLEY. You maintain all the locomotives in this fund?

Admiral GREGORY. And, as a general thing, the cost of those locomotives is a charge against indeterminate distributed among the other appropriations which is a labor.

Mr. KELLEY. That is news to me. I thought you took everything that moves about the yard.

Admiral GREGORY. We should and in the old days gradually the appropriation, maintenance, has been falling needs.

Mr. KELLEY. Then if you do not have enough to take care of the yards the Bureau of Construction and Repair and the Engineering pay it out of their repair bills, do they?

Admiral GREGORY. The work is ordered to be done by the commandant or manager of the yard, and then the accounting officer attributes the cost of that to the other appropriations according to amount of productive labor they have.

Mr. KELLEY. Where do you come in?

Admiral GREGORY. The bureau does not come in at all. It is of that we do not know; we do not know where the expense is, that is, for a long time afterwards, and then the certain.

Mr. KELLEY. What do you pay for in these yards?

Admiral GREGORY. We simply pay to the limit of that we have to spend on those yards. Then there is expense like the clerical and drafting force, watchmen, the carpenters and that kind of work, and repairs to military buildings made a direct charge against "maintenance," and other changes which are connected with the output of the yard. It is possible to charge to general expense and that is the other appropriations.

Mr. KELLEY. The fact is this, that if we give you a certain money for this purpose you allocate that to the various stations for maintenance, repair, and preservation?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. If that is insufficient for that purpose the difference is charged against the work that is done in the yard and paid for out of other appropriations?

Admiral GREGORY. That is the way it is done, although you must remember that as the year goes by problems arise every day which make it necessary to charge work in the yard to expense accounts other than the amounts allotted; the Bureau makes a quarterly allotment to each navy yard and then the yard figures from that quarterly allotment what kind of charges they can take, for example, such things as clerical force, watchmen and fire protection, and those things must be taken under "maintenance." In the event that certain work is necessary which they feel can not be made a charge against it, because of not having sufficient funds, they say, "Well, let us charge this to general expense, because it is something that can be distributed among various items."

Mr. KELLEY. What charges are absolutely, uniformly, and always charged against your fund in every yard?

Admiral GREGORY. Well, such things as charges for grounds.

Mr. KELLEY. Everything that is done in the upkeep of the grounds?

Admiral GREGORY. Everything on grounds.

Mr. KELLEY. That includes the taking care of the docks?

Admiral GREGORY. Oh, no; that is the clearing and cleaning the docks; it means the removal of refuse, the cutting of grass.

Mr. KELLEY. Mowing the lawn, and that sort of thing?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. What else?

Admiral GREGORY. Buildings.

Mr. KELLEY. Any repairs and alterations of any kind on anything.

Admiral GREGORY. It should be done, but it is not on a good many of the buildings.

Mr. KELLEY. Let us leave that out. Let us put in only the things which now come out of this fund and always come out of it. How about the repairs to the buildings, painting?

Admiral GREGORY. Well, sometimes we make repairs to certain of the buildings that are charged to shop expense; if they find the quarterly allotment is not sufficient and they have not got the money they charge it to shop expense. That ought not to be, of course, but it is sometimes.

Mr. KELLEY. How about the power plant?

Admiral GREGORY. In the power plant we handle the major repairs, the minor repairs and operation are prorated; that is a charge against the power plant that is prorated to the various items of productive labor which receive the benefit of power.

Mr. KELLEY. How about the trucks and automobiles?

Admiral GREGORY. There again we make the major repairs, the overhauls, but the minor work of touching up here and there, daily overhauls, supplies, and so on, are also prorated, and that is on a general expense.

Mr. KELLEY. You do the work and the other people pay the bills?

Admiral GREGORY. We do the work and we have to make the charges in that way because the appropriation is not sufficient.

Mr. KELLEY. Suppose we wiped this out entirely among the other bureaus?

Admiral GREGORY. Then you would never get any report to what the work costs.

Mr. KELLEY. How much better off are we now?

Admiral GREGORY. You are not so much better off. What ought to be done would be to rebalance the appropriation. The charges will be made direct charges.

Mr. KELLEY. There is not a man living who can tell money you ought to have in this fund.

Admiral GREGORY. It could be determined approximately.

Mr. KELLEY. If you had a general principle by which you could operate, but from all you have said it seems you have money with which to repair a building you charge this fund; but if a building needs repairing and you have money, you charge it up to the work that is being done on the building?

Admiral GREGORY. You charge it up to your shop and then it disappears into the cost of production. That is possible by legislation which was passed several years ago, but I do not think that was the intention of it, but that has been working.

Mr. KELLEY. If we should make this \$5,000,000, apportion it; you would apportion it and do whatever work could be done with the \$5,000,000, and then anything else that has to be done in the shops or yards will appear in the cost of repair or in manufacture?

Admiral GREGORY. Yes.

Mr. BYRNES. There is no way of limiting the fund as to how much they have the power to use other funds, is there?

Admiral GREGORY. No; there is no way of doing it except to have a need for work as it arises.

Mr. FRENCH. It amounts to a supplemental fund each of these other funds, does it not?

Admiral GREGORY. Yes.

Mr. FRENCH. They supplement this fund and they supplement their fund?

Admiral GREGORY. Yes, sir; except that it does not go to the credit of the fund.

Mr. FRENCH. Some way should be found to have completely what you must do and have the money to do, and not draw money from these other funds. It would be a very helpful thing.

Admiral GREGORY. The department is at the present time, through a revision of its accounting system, expending the greatest amount of direct charges against appropriation, a very desirable thing because then you will have your charges and you will know exactly what your money goes for. The reason why we have paid for these indeterminable charges is that the appropriation, maintenance, primarily is too small, increased by enough to take the direct charge out of the system would be vastly simplified and you would know the cost of doing work which, at the present time, you do not know.

ELLEY. Colonel, we have run into a situation here which is in connection with the appropriation for yards and maintenance, repairs, and preservation.

MR. ROOSEVELT. That is a general catch-all appropriation they have in there and it is one of the things with which we have a great deal of difficulty because, although it catches all, it does not quite all, and you never know where it begins and where it ends.

ELLEY. Worse than that, the Admiral says it does not make sense what sum we put in here, he will apportion that to the yards and let it go as far as it will, and then whatever whatever preservation or whatever maintenance may be over and above the amount carried here will be charged to that is being done in the yard and go in as the cost of the cost of production and paid out of other funds, so that no person can tell what it is costing to repair or run any yard, you tell the cost of repairing anything or the cost of manufacturing anything.

MR. GREGORY. I understand this has been up before and is new at all.

ELLEY. We have had it before us in other years but I think a little bit franker about it than anybody else has been in our practice.

MR. GREGORY. I am just trying to be honest about it.

MR. ROOSEVELT. As a matter of fact, I got last night a memorandum on this exact subject. I have been fussing about about this item for about eight months, as it comes into a question of cost accounting system. I have been working with first one committee and then with another committee in trying to get this matter straightened out, and also trying to get another item, which is called indeterminate expenses, simplified. I believe we are probably within about a week of getting a decision on it. I have a memorandum on it now showing how it will be worked, but I will not attempt to go into it here because I do not fully understand it myself yet, and if I could I would want to have with me at least two or three of the people who have been working on the cost accounting and the cost accounting in order to explain it to you. If you want to see it, I can get them.

MR. EVER. Have you been treating it rather as a reserve fund on which you could draw or has it been allocated before any need has arisen for it?

MR. ROOSEVELT. It has been allocated first of all—it really is a way around—what was not taken care of here was taken care of somewhere else, so you could not call it a reserve fund.

MR. EVER. With that explanation, it occurs to me that it would be better to make an appropriation without some kind of a limitation—other words, without showing to the committee that you may use it in addition to what we have granted for specific purposes.

MR. ROOSEVELT. As far as that goes, I will give you a clear idea about where it will go to-morrow morning.

MR. EVER. Why not have asked for it under those heads if you know where it will go?

At the January rate the expenditures for the fiscal year 1922 would be and at the percentages named the charges to the appropriations on acc terminate charges would be as follows:

Increase, Navy.....	\$4
Naval emergency fund.....	9,771.11
Ordnance and ordnance stores.....	2.34
Construction and repair.....	2
Engineering.....	2
Aviation.....	211
Yards and Docks.....	10,561
Total.....	10,561

The above figures include all power expense. Under the accounting i "power expense" includes not only the direct cost of producing power, i. e. other fuel, lubricating oil, water, waste, pay of engineers, firemen, and plant labor and supplies, but also replacements and repairs to power-pl distributing systems, machinery, boilers, piping, power plant, tools. latter items are such as are legally chargeable direct to "Maintenance Yards and Docks," but it is considered proper and desirable that the the power furnished to vessels and shops should be charged to the s provided for the repair, maintenance, or operation of such vessels and es estimated that 60 per cent of the entire power expense should be so ch 40 per cent should be borne by "Maintenance, Bureau of Yards and Dock ing the items of power expense last above mentioned.

The bureau estimates that the total indeterminate expense for 1923 \$10,000,000. During 1921 it was \$11,142,845.97 and the power ex \$5,425,393.66, or approximately 48 per cent of the total. The power ex 1923 is therefore estimated at \$1,800,000, and 60 per cent of this, or \$2,8 be charged to the ships and shops appropriations, while 40 per cent, would be charged to "Maintenance, Bureau of Yards and Docks," wh tion would thus carry all of the difference between the total of \$10,0 power expense amounting to \$2,880,000, chargeable to the other a This would place upon this appropriation \$7,120,000, in addition to the mate for 1923, \$6,750,000, making a total of \$13,870,000.

The bureau now proposes, in order to have charges made direct to and thus give better control over expenditures and simplify accounti various appropriations rebalanced by providing sufficient funds un "Maintenance, Yards and Docks," to pay the charges which the appropriation act contemplates should be charged thereto.

The amount just stated to be appropriated is \$7,120,000 more t estimate of \$6,750,000. The appropriations of other bureaus whic by this amount being taken out of "indeterminate expense" and adde nance, Bureau of Yards and Docks," approximately according to the above stated, would be as follows:

Increase, Navy, (40 per cent).....	\$
Construction and repair 25 per cent.....	1
Engineering 20 per cent.....	1
Ordnance and ordnance stores 10 per cent.....	11
Total.....	1

No "naval emergency fund" expenditures are probable for 1923. expenditures will probably be so comparatively small as to be two appropriations, which have carried some charges heretofore,

The bureau estimated that a substantial saving can be effected account of making charges direct, and therefore recommends that appropriated under "Maintenance, Bureau of Yards and Docks," be 000, or \$1,011,000 less than the present estimate, \$6,750,000, pl mentioned.

No legislation is necessary to accomplish this result other than that provide sufficient funds under "Maintenance, Bureau of Yar and relieving other appropriations from the expense of upkeep of chargeable to the appropriation just mentioned. An inc "Maintenance, Bureau of Yards and Docks," will render expenditure direct to fleet repair under other appropriations, a

KELLEY. In the event that a yard is closed down or practically down, how will that reduce the expenses of your bureau, so far as the yard is concerned?

ADMIRAL GREGORY. We do not expect it will make any substantial difference in the charges which would come normally to Yards and Stations; the saving will be entirely on the appropriations to other yards.

ESTIMATED EXPENDITURE FOR PHILADELPHIA NAVY YARD.

KELLEY. Let us analyze that a little. Take the Philadelphia yard you estimate next year to spend on the Philadelphia yard \$500,000. Do you think it will cost any sum like that to close that yard down and do what is necessary to keep it in status quo?

ADMIRAL GREGORY. That is the navy yard's estimate, but I am not sure it would cost nearly that, sir. Let me explain that to you.

KELLEY. Let me run into some of these items. Among these for the Philadelphia yard there is furniture, \$10,000. You do not need to buy any furniture?

ADMIRAL GREGORY. That would probably be almost entirely eliminated.

KELLEY. You would not operate the dry dock?

ADMIRAL GREGORY. No, but our appropriation is not for the operation of the dry dock. What we expend is for repairs and upkeep.

KELLEY. You have \$25,000 which could go out?

ADMIRAL GREGORY. It might be that the overhauling of the dry dock would cost more than that. That is an item which increases and decreases from year to year.

KELLEY. If you shut down there would not be much overhauling of anything?

ADMIRAL GREGORY. We would have to make the repairs.

KELLEY. The expense would, I suppose, be mostly fuel?

ADMIRAL GREGORY. The operation of the power plant for the yard is a great deal more than that; that is only the amount added to "maintenance."

KELLEY. That would be a big fuel bill if you were not doing the work?

ADMIRAL GREGORY. That also includes the pay of the firemen and the cost of the fuel.

KELLEY. You certainly would not need as many people.

ADMIRAL GREGORY. No; there would be some reduction.

KELLEY. The waterfront, would you have to spend as much as that?

ADMIRAL GREGORY. I can not say whether we would need as much as that.

KELLEY. For special equipment, you would not need to buy

ADMIRAL GREGORY. We would not need as much as that.

KELLEY. Classified employees, \$92,000, that would all disappear?

ADMIRAL GREGORY. That will be reduced.

KELLEY. And, also, leave pay.

ADMIRAL GREGORY. A large amount would go.

while in the custody of the Naval Establishment at navy naval stations."

Admiral GREGORY. That is for the purpose of ab rapid or prompt settlement with the various rail cars are damaged in the navy yards, perhaps, by At the present time we are not authorized by repairs, and it requires a great deal of red tape order to railroads secure the relief that they need. Wi it can not be taken back over the railroad again in us dition, and because of not having that authority we are from playing fair with the railroad companies.

Mr. KELLEY. Would you put any limitation on t ?

Admiral GREGORY. No, sir; there is no need of ; It is bound to be a very small amount in dollars

Mr. KELLEY. The Secretary already has auth ty not in excess of \$500.

Admiral GREGORY. Yes, sir; and that is why we have to the department. That takes time.

Mr. KELLEY. I would not want to put that auth ty reaus. I do not think Congress would be willing to

Admiral GREGORY. If a car is damaged at a yard, a damage, it is desirable to have that repair made the car can be taken out.

Mr. KELLEY. You want authority to settle t the money out of this appropriation without rep to at all?

Admiral GREGORY. Yes, sir. It is not a claim.

Mr. KELLEY. It is the same thing. It is a cl damage to cars.

Commander ROUZER. The idea is for the Gover work itself.

Mr. KELLEY. That is the same thing.

Commander ROUZER. We can not do it nc

Admiral GREGORY. We have no authority ow to any property that does not belong to us, ai to do that.

Mr. KELLEY. I do not know that you should that.

Admiral ROUZER. If we do the damage, or if it in our possession

Mr. KELLEY (interposing). You have authority to and is not that the better way?

Admiral GREGORY. But how will the railroad c out? The law does not allow a car to go out over damaged condition. If we had authority to could be made promptly, and the car could

Mr. KELLEY. You could make an arra company by which you could make the r

Admiral GREGORY. It has been complicated has caused a great deal of annoyance. That doing this.

Mr. OLIVER. Do you have to pay demurrage the making of the repairs?

Admiral GREGORY. Yes, sir; it will save money vision go in.

ICAL EXPENDITURE, DRAFTING, MESSENGER, AND OTHER CLASSIFIED WORK.

KELLEY. It is an item of legislation that we would not have fiction over.

u have reduced the classified expenses from \$1,300,000 to 0,000?

miral GREGORY. Yes, sir.

KELLEY. You could make a bigger cut than that, could you

miral GREGORY. Not without tying up our records in bad. We have made very substantial cuts from 1917 to date, and ut to \$1,150,000 is going to cause a very decided pinch.

KELLEY. We will make quite a reduction in the establish- I presume. In 1916 you had 325 employees, and the expense \$346,759.94. Now you want about three times as much.

miral GREGORY. No, sir; not three times as much.

SMITH. I have not the number of our present force that is ly employed, but the amount is \$1,126,848.

KELLEY. How many people are employed?

SMITH. There are 539 employees.

KELLEY. As against 325 in 1916. Who fixes the schedule of or draftsmen and other employees in the bureau?

miral GREGORY. That has been fixed by a board of officers in ureau under a plan whereby they establish grades of pay for the nt classes of work. Then the yards concerned place in that ule the individuals according to their abilities and capabilities, ne approval of their schedule is what fixes the pay of the indi- ls. I know personally that many of those individuals are being ess than their abilities demand, and there is a constant howl tter recognition. We know that they are ground down pretty

PAY OF DRAFTSMEN, ENGINEERS, ETC.

KELLEY. Most of your draftsmen and engineers are getting \$3,000 apiece?

miral GREGORY. No, sir.

KELLEY. For the architectural aid the total per annum is 1.40; you have an assistant designing engineer at \$3,630.80; a ngineer aid at \$3,756; another one at \$3,630; two at \$7,011 for vo; one at \$3,255.20; four at \$12,000, or \$3,000 each; one at 5; one at \$3,757; one at \$3,130; three at a total salary of \$13,897, on down.

miral GREGORY. Those rates of pay are in accordance with the f outside establishments.

KELLEY. In 1916 there were two positions that paid a little \$2,000. Those positions paid \$2,300, \$2,200, and the next was 1. All the others were \$2,000 or less. This pay has advanced what percentage, would you say, since 1916?

miral GREGORY. It is well known that the pay of professional e like that has advanced over double since 1916.

KELLEY. Are these about the rates that are paid by the New-ews Shipbuilding Co. or the Fore River Shipbuilding Co.?

miral GREGORY. I think so.

KELLEY. The pay is fixed by a board of naval officers?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. And it is approved by the Secretary?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Have they been advanced lately?

Admiral GREGORY. They have been cut lately. Act taken place within the last month or so. There was a month ago, and another one last fall.

Mr. KELLEY. Do you furnish draftsmen for the Bureau?

Admiral GREGORY. When we are designing any of those bureaus the draftsmen are paid for out of our appropriation.

Mr. KELLEY. If we close down any considerable number or partially close a number of navy yards, as a result of reduction of ships, would not that reduce your force?

Admiral GREGORY. That will permit us to catch up with the work we now have on hand, and which, on account of the reduction in former years, we have not caught up on. We are catching up with all of the work that has been appropriated for since that date.

Mr. KELLEY. What work do you especially refer to?

Admiral GREGORY. We have quite a good deal of work in the bureau now under amounts carried in last year's bill.

Mr. KELLEY. Like the hospital at San Diego?

Admiral GREGORY. We are working on that. That is not all completed, and a great deal of the work in connection with the San Diego Hospital is still going on in our drafting room.

Mr. KELLEY. I can see how an outside field force might be required.

Admiral GREGORY. Yes, sir; and an office force as well. There is a large amount of work coming to a head which will not begin for a couple of years, but we will try to catch up as fast as we can do so.

Mr. KELLEY. So you think this amount can not be reduced to \$1,150,000?

Admiral GREGORY. Not without delaying the work very much.

AUTOMOBILES.

Mr. KELLEY. I call your attention to this new provision:

Provided further, That hereafter the Secretary of the Navy may make appropriations giving the requisite authority for the purchase of automobiles for passenger-carrying purposes, after proper surveys and condemnation of the land, at a cost of not to exceed \$2,000 for automobiles having a capacity of five passengers or \$500 for automobiles having a capacity of five passengers.

You have lots of cars, have you not?

Admiral GREGORY. We had a lot of cars at the beginning, but we have had no new ones since then, and those are rapidly worn out. We are getting to the point when they are sold for junk, should be renewed. Mr. Warren wants to make a statement in regard to that.

Commander WARREN. We are not getting any new cars, and they are about to fall to pieces. Some are 10 years old, and we thought that it would be necessary next year to replace those cars.

r. KELLEY. How many do you want next year?

Commander WARREN. We want one-fifth of what we can run on \$1,000. We are running now 228 cars, including Marine Corps abroad. On the 1st of July we had 504, and we do not know to beat this new law you made.

r. KELLEY. You want to buy 40 cars?

Commander WARREN. Yes, sir; one-fifth of what we have.

r. KELLEY. What kind of cars do you want?

Commander WARREN. We want to buy Packards, but we figure we will probably have to buy something of the Buick type. We have to have a car if we are to have service, and we knew that it \$2,000 would be all that we could get.

r. KELLEY. Do you handle all of the cars for the Navy?

Commander WARREN. That comes under the Bureau of Yards and Docks, but it was such a mean job that they gave it to the Assistant Secretary of the Navy, and I have been handling it under the personal supervision of the Assistant Secretary.

r. KELLEY. Do you tell him what to do, or does he tell you what to do?

Commander WARREN. He tells me what to do.

Colonel ROOSEVELT. I take his advice in a great many things on the subject of automobiles. We have had stony hearts all last year. You can imagine how we have had stony hearts when I say that we have reduced the number in the past six months from 504 to 228.

r. KELLEY. How many automobiles did the Navy have before the war?

Commander WARREN. We owned 659.

r. KELLEY. Before the war?

Commander WARREN. That was in March. I do not know how many we had before or during the war. That is as far as my knowledge goes.

r. SMITH. The first ones were bought early in the war.

r. KELLEY. You did not have any before that at all?

r. SMITH. No, sir.

r. KELLEY. How did they get around?

Commander WARREN. Every commandant had two horses and a wagon.

Colonel ROOSEVELT. I remember that my father, when he was Assistant Secretary of the Navy, had horses and a wagon. I remember that perfectly, and I remember he had an old driver named Hall.

r. BYRNES. Every commandant has a car.

Commander WARREN. Yes, sir.

r. KELLEY. You have how many cars?

Commander WARREN. Two hundred and twenty-eight, including the car here and abroad.

r. KELLEY. That will take care of all the commandants?

Commander WARREN. Yes, sir.

r. KELLEY. How many cars have you in storage?

Commander WARREN. We have in storage about 123.

r. KELLEY. Are they entirely useless?

Commander WARREN. We have reports on the condition of each one of them, and we are selling them. We are cutting them down every day by selling them.

Colonel ROOSEVELT. We sold more than 100 du

Mr. KELLEY. I guess we will have to let the office buy cars from now on.

Commander WARREN. Can you imagine running an in the size of the Navy without some kind of cars?

Mr. KELLEY. They have 229.

Commander WARREN. Yes, sir; but it costs a great deal to run those cars. We have got to replace them in

Admiral GREGORY. There is a matter of economy because we are not asking for an increase in the amount for upkeep. This is for the purpose of being able to make a economical disposition of a car when it gets to the point where the cost of upkeep is more than the cost of a new car. We figure that we can run a car for 100 miles per mile is too great to operate it, and when it gets to that point and buy a new car. We figure that we can run a car for 100 miles where the cost of upkeep is more than the cost of a new car.

Mr. KELLEY. A few years ago Congress would have given of the House of Representatives a car, and I do not know if he has one now. You speak of \$2,000 cars, but you can get anything better than a Ford to run around the navy. A bicycle would be better yet.

Admiral GREGORY. It is proposed to replace the old cars with seven-passenger cars.

Mr. KELLEY. Why would you want a seven-passenger car in a navy yard?

Admiral GREGORY. The commandant of the navy yard needs such a conveyance for parties of official visitors, including foreign representatives, etc., who are coming to the yard. Very frequently he needs a big car, and he needs a car.

Mr. BYRNES. How many yards have we got, or how many commandants do we have?

Admiral GREGORY. We have nine navy yards and a number of naval stations.

Mr. BYRNES. You have 28 commandants, but only 9 people who have no official visitors to take care of. Why is it necessary to have so many cars, and we will leave that question on the floor of the House.

Admiral GREGORY. I can give you an experience. Last summer while I was stationed as public works officer at Navy Yard and aid for public works in the first naval district that capacity I had charge of the work from Bar Harbor to Newport on the south. I had under contract for that period probably seven or eight different radio contracts. There was construction work going on at every point. After July 1, last, when the restriction that was put in effect, I found that I was compelled to go to the point with me with an automobile to go to a certain point where work was under way. That is not a proper position for the Government in that is, to have to ask for transportation. I had to do it because transportation for the public works officer of the first naval district is a great deal of travel duty in inspecting work. For instance, the radio matériel officer who has

of all those stations had to visit them. He had to visit the men to see that they were on the job, that the work was being done properly, that proper reports were being made, and that the plants were being kept up as they should be. He had the same difficulty to go through with, and if he did not have a car of his own, he would have to beg, borrow, or steal in order to get a car. I do not think you gentlemen realize, where you have so many stations that are dependent upon a single station as headquarters, what a great deal of special travel is necessary.

Mr. KELLEY. There will not be so many next year. That work you talking about was during the war.

Admiral GREGORY. There was no war last year and I had that appropriation with no war going on.

Mr. KELLEY. We just ended the war a few weeks ago officially, you know, and there is always a lot of hang-over stuff that follows a war. I think those places will all be shut down next year.

Admiral GREGORY. The radio compass stations are, so far as I can tell, permanent institutions. There are places where we might be able to cut down some, but I think very few.

Mr. KELLEY. \$767 is what it cost you to keep up one of these cars during the year. They must be pretty good cars.

Admiral GREGORY. When you take into consideration the cost of a chauffeur and all—

Mr. KELLEY (interposing). Do all of the mechanics have chauffeurs? You do not have many chauffeurs, do you?

Admiral GREGORY. You have to pay for chauffeurs when they are civilians.

Mr. KELLEY. Do you allow these people to have chauffeurs as well as cars?

Colonel ROOSEVELT. Some of them have and some have not.

Commander WARREN. The commandants of all big stations have chauffeurs.

Admiral GREGORY. As a matter of fact, I would rather pay a chauffeur than trust a Government car to the average naval officer driving it. We find it costs much less.

Colonel ROOSEVELT. Perhaps it might aid you a little bit if Commander Warren gave you the distribution.

Mr. KELLEY. You might put that in the record, as it will show who has the cars. Is it a long table?

Commander WARREN. No, sir; not particularly. I will insert it.

Statement of passenger cars (exclusive of motor cycles) in use or reserve, and allowances for maintenance, operation, and repair.

[Compiled from latest reports to the Bureau of Yards and Docks, March 20, 1922.]

Place and allowance.	Car and No.	Assignment.
Acosta, \$700.....	Cadillac, 2030.....	General use.
Napoli, \$3,300.....	Packard, 4.....	Superintendent.
	Ford, 9.....	Buildings and grounds.
	Ford, 5.....	Medical officer on out-patient duty.
Atlantic Fleet, \$600.....	Cadillac, 1681.....	Commander in chief, Atlantic Fleet.
Boa, \$1,800.....	Dodge Sedan, 1030.....	Commandant fifteenth district.
Dwinn, \$290.....	None.....	Allowance is for a motor cycle for general use.
London, \$3,390.....	Oldsmobile, 35.....	Public works officer, first district.
	Cadillac, 2914.....	Commandant's office.

Statement of passenger cars (exclusive of motor cycles) in use or reserve, and maintenance, operation, and repair—Continued.

Place and allowance.	Car and No.	Assignment.
Boston, \$3,390.	Nash, 1732	Chief of staff, first district.
	Ford, 1701	Commandant's office.
	Dodge, 953	Supply and disbursing department.
	Packard, 1087	In reserve.
Cape May, \$600.	Ford, 1924	Public works department.
Cavite, \$1,200.	Packard, 2822	Commandant.
Charleston, \$3,495.	Cadillac, 88	Do.
	Ford, 1836	General use.
Coco Solo, air, \$180.	None.	Allowance is for a motor cycle in use.
Coco Solo, base, \$780.	Ford, 1889	Commanding officer.
	G. M. C. (bus)	General use.
	Ford (bus), 2125	In reserve.
Europe, \$8,000.	Cadillac, 2878	Force commander, flag-ship
	Cadillac, 2886	London.
	Cadillac, 2876	Paris.
	Cadillac, 2889	Constantinople.
	Cadillac, 1901	Berlin.
Fort Lyon, \$580.79.		Transferred to Veterans' Bureau.
Great Lakes, \$1,940.18.	Packard, 135	Commandant.
	Packard, 134	In reserve.
	National, 138	Executive officer.
Guam, \$1,380.	Peerless, 300	Governor.
Guantanamo, \$400.	Ford, 305	General use.
	Ford, 1163	In reserve.
Hampton Roads, \$1,095.	Cadillac, 2475	Commandant.
	Packard, 319	Commanding officer, training
	Packard, 1133	Commanding officer, air station
	Peerless, 1162	Officer in charge, supply station
	Packard, 686	Public works officer.
	Cadillac, 1981	Assistant commandant.
	Ford, 2238	Training station.
	Ford, 113 X	Supply station.
	Ford, 2241	In reserve.
Hingham, \$225.	Ford.	Inspector in charge.
Indianhead \$3,690.	Packard, 381	Do.
	Hudson, 1780	Commanding officer, Indianhead
	Hupmobile, 1783 (2-passenger).	In reserve.
	White 7, 1785	Do.
	Olismobile, 382	Commanding officer, Indianhead
Keyport, \$940.	Ford, 2999	General use.
Key West, \$900.	Overland, 1944	Commandant.
Lake Denmark, \$400.	Ford, 110	Inspector in charge.
Lakehurst, \$3,390.	Pierce-Arrow bus, 1630	Civilian employees and liberty
	Ford, 849	Mail orderly and routine.
	Haynes, 1730	In reserve.
	Packard, 1997	Do.
	Cadillac, 2213	Manager.
Mare Island, \$3,481.	Winton, 417	Commandant.
	Ford, 419	In reserve.
New London, \$1,200.	Marmion, 1498	Commanding officer.
New Orleans, \$2,700.	Cadillac, 532	Commandant.
Newport War College, \$2,700	Cadillac (limousine), 2367	President.
Newport Naval Station, \$250	Ford, 1718	Medical officer.
New York yard, \$3,900.	Packard, 572	Commandant.
	Cadillac, 1298	In reserve.
New York district, \$3,550.	Packard, 534	Commandant.
	Packard, 571	In reserve.
	Winton (limousine), 1301	General use.
Norfolk, \$3,340.	Cadillac, 2615	Commandant.
	Peerless, 685	Manager.
	Ford, 693	Captain of yard.
	Ford, 692	Supply officer.
	Ford, 687	Medical officer.
Paris, \$2,700.	Cadillac, 2879	Graves registration.
	Cadillac, 2875	Do.
Pearl Harbor, \$2,073.97.	Cadillac, 612	Commandant.
	Owen-Magnetic, 772	In reserve.
	Ford, 774	Public works officer.
	Ford, 2482	Medical officer.
	Ford, 1149	In reserve.
	Ford, 1943	General use.
	Winton bus, 1229	In reserve.
Pensacola, \$2,200.	Peerless, 818	Commandant.
	Owen-Magnetic, 395	Captain of yard.
	Ford, 819	Public works.
	Ford, 828	General use.

f passenger cars (exclusive of motor cycles) in use or reserve, and allowances for maintenance, operation, and repair—Continued.

d allowance.	Car and No.	Assignment.
yard, \$4,560.....	Packard, 1351.....	Commandant.
	Packard, 482.....	In reserve.
	Cadillac, 2017.....	Commandant's office.
	Cadillac, 2338.....	In reserve.
	Cadillac, 1683.....	Aircraft factory.
Home, \$840.....	Cadillac, 2200.....	Governor.
\$2,700.....	Peerless, 913.....	Commandant.
	Cadillac, 2474.....	In reserve.
\$3,300.....	Winton, 926.....	Commandant.
	Ford, 1001.....	In reserve.
vice, \$11,700.....	Ford, 2773.....	Baltimore, Md.
	Ford, 1078.....	Washington, D. C.
	Ford, 1573.....	Brooklyn, N. Y.
	Oldsmobile, 2776.....	Buffalo, N. Y.
	Studebaker bus, 2784.....	Chicago, Ill.
	Ford, 1509.....	Do.
	Ford, 2240.....	Cincinnati, Ohio.
	Ford, 1356.....	Dallas, Tex.
	National, 117.....	Detroit, Mich.
	Ford, 2700.....	Indianapolis, Ind.
	Studebaker, 1206.....	Inspector, New England.
	Cadillac, 2499.....	Inspector, eastern.
	Cadillac, 2148.....	Inspector, southeastern.
	Cadillac, 1958.....	Inspector, southern.
	Oldsmobile, 2697.....	Inspector, central.
	Cadillac, 2886.....	Inspector, west central.
	Cadillac, 2821.....	Inspector, western.
	Ford bus, 2747.....	Little Rock, Ark.
	Studebaker bus, 2726.....	Los Angeles, Calif.
	Ford, 1504.....	Nashville, Tenn.
	Ford, 2100.....	New Haven, Conn.
	Ford, 1297.....	New York, N. Y.
	Ford, 1350.....	Philadelphia, Pa.
	Ford, 2885.....	Portland, Oreg.
	Ford, 1108.....	Recruiting bureau.
	Oldsmobile, 2366.....	Seattle, Wash.
	Ford, 1975.....	St. Louis, Mo.
500.....		Transferred to Philadelphia, Dec. 20, 1921.
\$2,700.....	Cadillac, 2873.....	Commandant.
	Ford, 2892.....	Hospital.
	Packard, 2810.....	In reserve.
r Station, \$888.....	Ford, 1377.....	General use.
eleventh district,	Ford, 970.....	General service.
	Ford, 1153.....	Do.
se, \$2,700.....	Packard, 965.....	Commandant.
o district, \$2,700.....	Cadillac, 2255.....	Do.
,200.....	Cadillac, 2480.....	Commander in chief, Pacific Fleet.
go, \$2,700.....	Cadillac, 1679.....	Military governor.
	Ford, 995.....	Supply officer.
yn, \$600.....	Cadillac, 2578.....	Officer in charge.
ton, \$2,700.....	Packard, 1008.....	Inspector in charge.
yard, \$3,300.....	Packard, 1025.....	Commandant.
dispensary, \$4,200.....	Dodge (2), 2497.....	General use.
	Dodge (2), 2664.....	Do.
	Willys (7), 2495.....	In reserve.
department,	Packard (limousine), 1947.....	Secretary.
	Winton (limousine), 1300.....	Assistant Secretary.
	Cadillac, 2874.....	Chief of Operations.
	Packard, 1068.....	Pooled for special use and replacement.
	Packard, 1945.....	Do.
	Ford, 1026.....	General use.
,200.....	Reo, 1929.....	Inspector in charge.
	Ford, 2033.....	Public works and supply officers.
	White bus (8), 2371.....	In reserve.
	White bus (12), 2370.....	Do.
	Ford, 1066.....	Do.

Passenger-carrying vehicles owned by the Marine Corps in the United States

[Allowance, \$24,900. Column "Light" includes Fords, Dodges, and Nash 5-passenger cars included under column "Heavy."]

Station.	Automobiles in use.		Amount.
	Heavy.	Light.	
Hampton Roads depot.....		1	
Mare Island, Calif.....	1		
New London, Conn.....			
New Orleans, La.....			
New York, N. Y.....	1	1	
Norfolk, Va.....		1	
Parris Island, S. C.....		3	1
Philadelphia barracks.....	1		
Philadelphia, Pa., (depot).....			1
Philadelphia, Pa., depot (use).....	1	1	
Quantico, Va.: Barracks.....	2	2	1
First Regiment.....			
Tenth Regiment.....		1	
San Diego, Calif., barracks.....			
San Diego, Calif., A. B. F.....	1		
San Francisco, Calif. (depot).....	1		1
Washington, D. C. (headquarters).....	2	1	2
Yorktown, Va.....		1	
Total.....	11	12	5

Grand total, 197. Total of allowances, \$154,847.94.

Mr. KELLEY. These are pretty hard times and I do think Congress would be willing to give you 40 new automobiles. I think this is legislation, anyway.

Admiral GREGORY. No; it is the renewal of old,

Mr. KELLEY. Is there anything else about the matter?

Admiral GREGORY. There is some other language at the bottom of the page.

Mr. KELLEY. "And exclusive of vehicles for officers in attending patients." Why do you say that?

Commander WARREN. A case in point came up at New London, Conn. The medical officer there has to attend all the enlisted men and their families; they are scattered all around with which to get around, and out of the appropriation I can not give him an automobile. He borrows a car and uses private cars.

Mr. KELLEY. I have an idea you will be able to get the cars for the doctors wherever it is necessary out of all this money.

Commander WARREN. That is not a whole lot.

Mr. KELLEY. What was your repair bill for the cars last year?

Commander WARREN. We allot the money for the cars. This is one allowance which we said had to be for the cars. We have a little money left, with which we are going to buy more cars in shape. We gave them \$1,200 for the car, the upkeep of it, and we gave them \$600 for the car, and we told them when they exceeded that they exceeded it to put the car out of commission. They are not exceeding it.

Mr. KELLEY. If this language were put in this bill, the cars would it make?

Commander WARREN. Personally, I do not think it is good language.

r. SMITH. It will make no extra cars, because it is merely for replacement; one will go out and one will come in.

Colonel ROOSEVELT. That is not meant to increase the number of a single one, not one; it is simply meant to act as a replacement car which has worn out. If the committee desires to fix a definite number on the number of cars that may be replaced it is requested that number be fixed at not less than 20.

r. KELLEY. It provides:

that expenditures from appropriations contained in this act for the maintenance, operation, and repair of motor-propelled, passenger-carrying vehicles, including the compensation of operators, shall not exceed \$175,000, exclusive of such vehicles owned and operated by the Marine Corps in connection with expeditionary duty without continental limits of the United States, and exclusive of vehicles being used by naval officers in attending patients.

that would put those two outside of this limitation.

Colonel ROOSEVELT. I think the matter of the Marine Corps came last time.

r. KELLEY. But the effect of this would be to allow as many cars for doctors as you saw fit, and I asked you how many you thought would be.

Commander WARREN. That is something no one could estimate, it would not increase the present number.

r. BYRNES. You do not know how many they now have?

Commander WARREN. Yes; we know how many they now have, in some cases they do not have far to go and in some cases they do. It is entirely in the discretion of the Assistant Secretary; they can make the case to him and he says yes or no.

r. KELLEY. Who furnishes the gasoline for the cars?

Commander WARREN. It does not make much difference who furnishes it, but usually Yards and Docks. However, it is charged against the allowance we give them.

r. KELLEY. Against the \$175,000?

Commander WARREN. Yes, sir.

r. KELLEY. There is a small item for contingent expenses. You have \$150,000 for 1922, and you are asking the same amount for 1923.

Admiral GREGORY. Yes, sir. From the very meaning of the words covers things we can not foresee, and if we do not need the money we do not expend it. However, in case of emergency we have it and can use it.

THURSDAY, MARCH 23, 1922.

STATEMENT OF REAR ADMIRAL L. E. GREGORY, CHIEF.

SALARIES.

r. KELLEY. You have this year for your permanent roll \$23,690. How much are you asking for next year?

Admiral GREGORY. It is being increased by \$1,000 to the sum of \$24,690, that increase being for the chief clerk.

r. KELLEY. If that is not allowed, the statutory list will stand the same as last year?

Admiral GREGORY. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. For the temporary roll, you know, and you are asking how much?

Admiral GREGORY. This year for the temporary of \$50,000, but our roll actually amounts to proposing a reduction to \$30,660, which is a very large reduction.

Mr. KELLEY. How many employees have you in the temporary bureau?

Admiral GREGORY. On that force we have a force that is, on the additional clerical force.

Mr. KELLEY. And they are added to your staff?

Admiral GREGORY. Yes, sir; of 20, making 100.

DRAFTSMEN AND OTHER TECHNICAL EMPLOYEES.

Mr. KELLEY. Now, the drafting force. You have \$200,000 last year.

Admiral GREGORY. And we have proposed a reduction for the next fiscal year.

Mr. KELLEY. I was hoping you might cut it down this year, Admiral.

Admiral GREGORY. We have made a cut in the drafting force which is very large, and I have grave misgivings as to whether we can do that without crippling our work. We are doing a great deal of work for other bureaus. For example, for the Bureau of Aeronautics we are opening up a great deal of work which was not done before the war; for the Marine Corps we are opening up a great deal of work for the barracks, and for the Bureau of Medicine we are opening up a great deal of work for the hospital work.

Mr. KELLEY. You do not build the radio towers, do you?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. If we should adopt the policy of building in good shape but not spreading out just at present, would it make some difference?

Admiral GREGORY. We are counting on that thing. Before the war the value of public works was approximately \$212,000,000, and since the war the value has increased so that the approximate value at the present time is \$300,000,000. The maintenance work all falls upon the technical force of the Bureau of Yards and Docks.

Mr. KELLEY. If there is quite a cessation of work in the yards, your draftsmen will not have so much to do, will they? They will not need so many. However, you think you can stand it?

Admiral GREGORY. I know we have, and we are counting on that. We also have to consider this: We have a great deal of work under way; and until that is finished we must keep the draftsmen. We have to check up the contractors' drawings, keep the books, and things of that kind. So I feel that in the cut we have been exceedingly liberal, because I think we have been liberal.

Mr. KELLEY. Could we make it \$150,000?

Admiral GREGORY. I should hate to see you do it. This figure was before I came here, and as soon as I saw it I realized it was to mean an enormous cut, and I do not think we could cut below figure at which we now have it, and I doubt whether I would suggested as much of a cut as this.

WEDNESDAY, MARCH 22, 1922.

PINOLE SHOALS—MARE ISLAND CHANNEL.

MENTS OF BRIG. GEN. HARRY TAYLOR, ASSISTANT CHIEF ENGINEERS, UNITED STATES ARMY; COL. THEODORE ROOSELT, ASSISTANT SECRETARY OF THE NAVY; AND REAR ADMIRAL L. E. GREGORY, CHIEF, BUREAU OF YARDS AND DOCKS.

Mr. KELLEY. What is your office in the Army, General Taylor?

General TAYLOR. I am the Assistant Chief of Engineers, and particularly in charge of rivers and harbor work.

Mr. KELLEY. You are familiar with the War Department improvements leading from San Francisco to Vallejo?

General TAYLOR. Yes, sir.

Mr. KELLEY. I wish you would make a brief statement as to the scope of the War Department, what you are attempting to do, how the work is progressing, and when you expect to complete the project according to your plans. First, what the plans are; second, stage of the work; and third, when you will be through.

General TAYLOR. The project which has been authorized by Congress provides for a channel across Pinole Shoal, which is the shoal of the Mare Island Navy Yard or Vallejo, 35 feet deep at mean water and 500 feet wide; also a channel 35 feet deep into the Mare Island Straits. This is the channel across what is known as Pinole Shoal [indicating on map] and leading up to this deep hole at this point [indicating] and into the Mare Island Strait, the yard being situated at this point [indicating]. On the 30th of June this channel was approximately 32 feet deep for the full width of 500 feet.

Mr. KELLEY. That is, through the shoal?

General TAYLOR. Yes, sir. There remain some 600,000 yards to be dug out of that channel to complete it to the full project depth of 35 feet. The dredge which is working on that shoal has a capacity of about 100,000 yards a month, so that if we should put a dredge there and keep her continuously at work it would be a matter of months to finish the work. Since that time the dredge has been working in the Mare Island Strait along the front of the navy yard. Last June there was a depth of 35 feet in the channel, but at that time a portion of it has shoaled and there is now a depth, on average, of 31 feet.

Mr. KELLEY. In front of the yard?

General TAYLOR. Yes, sir. That is not, however, the full width of the channel.

Mr. OLIVER. What is the extent of the shoal?

General TAYLOR. It is somewhere from 29 to 31 feet.

Colonel ROOSEVELT. That is, including the turning basins, is it 35 feet?

General TAYLOR. Yes, sir; there is a little greater depth of the navy yard, I think, where we have been working, but it is very nearly 35 feet deep there, but on the side away from the navy yard there has been considerable shoaling.

Mr. KELLEY. Was that due to the piers, dikes, and other obstructions there giving way?

General TAYLOR. No, sir; the dike is of material assistance in maintaining this channel, and also in maintaining the channel of the navy yard.

Mr. KELLEY. What causes the filling up of the strait between the navy yard and the city?

General TAYLOR. The material which is deposited in the strait and which is brought in largely from the shoals south of the navy yard.

Mr. KELLEY. And the only remedy for that is constant dredging?

General TAYLOR. Yes, sir. As I say, the dikes which have been built are of material assistance, but the dikes alone will not maintain the channel. If it were necessary to finish the channel, we could, by putting in another dredge, complete it in a very short time. The dredge we are using is what we call a seagoing hopper dredge. It is a dredge which sucks the material off the bottom, puts it in bins in the dredge itself, and then carries it away; we use some pipe-line dredges, which are working on the Sacramento River farther up, and if necessary we could put one of them in here. We could put another hopper dredge in there.

Mr. KELLEY. So that within the next six months you could get the project depth of 35 feet?

General TAYLOR. We could not get the full depth over the whole width in the Mare Island Strait Channel in six months. It would require considerable additional plant to do that—more dredges—we have—in six months.

Mr. KELLEY. How long would it take to do it with your present facilities or with facilities that are easily available?

General TAYLOR. We could probably do it in a year or a year and a half to two years.

Mr. KELLEY. That is, make the channel 35 feet deep for the whole width of 500 feet and the basin 35 feet the full width?

General TAYLOR. Yes, sir.

Mr. KELLEY. Have you any idea as to the annual expense of maintaining it at that depth and width, both the channel and the basin?

General TAYLOR. Both the channel and the basin will cost \$200,000 a year to maintain.

Colonel ROOSEVELT. I want to get that clear in my mind. It will cost \$200,000 a year to maintain the channel and basin, regardless of what we do on the dikes?

General TAYLOR. The dikes assist; and without the dikes the cost would be much more.

Colonel ROOSEVELT. But it will cost \$200,000 to keep the channel with the dikes and everything in?

General TAYLOR. Yes, sir.

Mr. KELLEY. That is not a very exorbitant charge, is it, for maintaining a project of that kind and for as large an establishment as we have there?

ral TAYLOR. No, sir; I do not consider it so; I consider it a maintenance charge; it certainly is very small as compared with Philadelphia, for instance. It costs us \$1,500,000 a year to maintain the channel up to Philadelphia.

OLIVER. There is considerable commerce on that water, is there?

General TAYLOR. There certainly is, and it is growing very rapidly.

OLIVER. And this will make it possible to use much larger

General TAYLOR. There is a great demand for the maintenance of a channel across Pinole Shoal by the commercial interests, without any regard to the navy yard.

OLIVER. In other words, a large part of the work which we are discussing is absolutely necessary in order to take care of commerce?

General TAYLOR. Yes, sir; it is entirely independent of the needs of the Navy.

10 ROOSEVELT. Let me clear myself up on that. That means there is a considerable amount of commerce up here, is there? [indicating on map]. The commerce goes up to Vallejo, does it?

General TAYLOR. There is a small amount of commerce up to the bay.

Colonel ROOSEVELT. The main commerce, then, is away down here? [indicating on map].

General TAYLOR. Yes; it is through the Pinole Shoal up to these settlements along on the east side of the bay and farther up.

RE.—The commerce passing through the Pinole Shoal channel amounted to 1,302,778 tons, valued at \$36,503,808, and 885,406 passengers.

Colonel ROOSEVELT. I just wanted to get that clear, because we must meet that situation in Congress further along. Now, then, at this point [indicating], which is at the foot of the Mare Island Navy Yard, up to Vallejo there would be very little commerce.

KELLEY. Vallejo is just across the river from the yard.

Colonel ROOSEVELT. But the general said there was very little commerce up to Vallejo.

General TAYLOR. There is very little commerce that goes to Vallejo.

Colonel ROOSEVELT. So that in here [indicating] it would be purely navy yard dredging?

General TAYLOR. Yes, sir.

Colonel ROOSEVELT. How much of the \$200,000 does that represent?

General TAYLOR. That is approximately one-half.

Colonel ROOSEVELT. \$100,000. In other words, half would be used for the benefit of commerce and half for the benefit of the navy yard?

General TAYLOR. Yes, sir.

Colonel ROOSEVELT. Half would be purely for the navy yard.

OLIVER. The word "purely" would hardly cover it because there is limited commerce there, not so much as on the main body, but there is a limited commerce going up there.

Colonel ROOSEVELT. But I doubt whether it demands the draft.

OLIVER. I do not think 35 feet would be necessary for the commerce going up to Vallejo.

Mr. KELLEY. General, we are very much gratified.

Colonel ROOSEVELT. In this connection I v statement: At Mare Island we have only holding a battleship and that dry dock will battleships, the Delaware and the North D build another dry dock.

Mr. KELLEY. You will have to go to t Affairs to get another dry dock.

Colonel ROOSEVELT. I just wanted you to nection with this particular situation, an ask Admiral Gregory how much that dry

Admiral GREGORY. In the neighborhood

Colonel ROOSEVELT. And the yard will the battleships, but there will have to be a ne dry dock only takes the older battleships.

DRY DOCK FACILITIES ON THE WEST COAST.

Mr. OLIVER. What dry dock facilities h coast, including Hawaii?

Admiral GREGORY. Are you referring to Mr. OLIVER. Yes.

Admiral GREGORY. We have a large dry Navy Yard, Bremerton, which will take an one at Mare Island, as Colonel Roosevelt limited in capacity and can only take two o those that are to be retained; there is noth coast until you get down to Panama, excej Point. Hunter's Point has a dock which w have, and from there you jump all the w

Mr. OLIVER. The Navy also has some sh

Admiral GREGORY. Yes, sir.

Mr. OLIVER. And they are now in the co needs?

Admiral GREGORY. Yes, sir. From there y and over to Pearl Harbor.

Now, Mr. Kelley, there was one particula day, in regard to a destroyer base, in whi pression that authority for that destroyer. I have looked it up and find that in the n the Secretary of the Navy was authorized of San Diego a certain tract of land for th

Mr. KELLEY. There is no trouble about i ing about Los Angeles, the submarine base.

Admiral GREGORY. There were several passed over, practically new, and you do n about them.

Mr. KELLEY. What were they?

Admiral GREGORY. There was one item fine base at Pearl Harbor—battery storag ing, \$64,000—which appeared to be a new tigation shows that that is really an addit

building, and, therefore, is an extension, so that item should receive consideration.

Then, the other items were such things as the storage for war heads torpedoes at Dan Diego, of which we wish to increase the capacity. We had an item in for \$200,000, and that one was not touched in the hearing the other day. It is on page 121 of the bill.

Mr. KELLEY. I think we had all of those, as everything seems to be marked on that page one way or another.

Colonel ROOSEVELT. Perhaps we did not have sufficient data, and this is what the Admiral is suggesting.

Admiral GREGORY. All the data was furnished that we were able to furnish, but that item, apparently, was passed over with so little comment that we had the impression that you were leaving it out for consideration.

Mr. KELLEY. Perhaps you are right.

Admiral GREGORY. Then, on that same page, is a proposition for a naval air station at Sand Point.

Mr. KELLEY. That is a new project and we will not discuss that.

Colonel ROOSEVELT. I just want to make clear that the reason why I brought in my statement about the dry dock was because I wanted to make clear that the dredging of the channel would not provide a station for handling battleships.

Mr. KELLEY. That is, if you want to dry-dock one of your larger ships?

Colonel ROOSEVELT. If we want to dry-dock any of the battleships which remain after this year at Mare Island, we must have another dock.

Mr. KELLEY. What is the matter with the dry dock you now have at Mare Island?

Colonel ROOSEVELT. At Mare Island?

Mr. KELLEY. Yes.

Colonel ROOSEVELT. It is too small.

Mr. KELLEY. Is it too short?

Colonel ROOSEVELT. It has a depth at mean high water to keel of 28 feet and 9.5 inches, and that will only take the Delaware and North Dakota.

Mr. KELLEY. I should say that was a very worthy project for you to take up with the Naval Affairs Committee.

THURSDAY, MARCH 23, 1922.

OFFICE OF THE SECRETARY.

STATEMENTS OF COL. THEODORE ROOSEVELT, ASSISTANT SECRETARY; MR. F. S. CURTIS, CHIEF CLERK; AND MR. ROY H. MOSES, ASSISTANT TO THE CHIEF CLERK.

SALARIES.

Mr. KELLEY. I notice that you have some increases in salaries here. We are asking this year for \$75,180 as against \$72,800. Do these increases come in.

Mr. CURTIS. The appropriation for 1922 was \$117,800, plus tails from other bureaus amounting to \$24,700.

Mr. KELLEY. We will confine ourselves to the statutory roll the moment. Your estimate for the statutory people amount \$75,180, and you have this year \$72,800. That involves either increases in pay or an increase in the number of employees.

INCREASE IN SALARIES OF CHIEF CLERK AND PRIVATE SECRETARY TO SECRETARY

Mr. CURTIS. There is an increase in the salary of the chief clerk and the private secretary to the Secretary of the Navy.

Mr. KELLEY. You ask to have the chief clerk's salary increased from \$3,000 to \$5,000.

Colonel ROOSEVELT. The chief clerk, Mr. Curtis, has been in the department, first, for 10 years as appointment clerk, and after that, for 14 years as chief clerk. He is perfectly invaluable to us down there, and his salary now is only \$3,000. Quite a number of the other civilian employees in the department are paid higher salaries than that.

Mr. KELLEY. You are recommending that his salary be increased to \$5,000?

Colonel ROOSEVELT. Yes, sir.

Mr. KELLEY. You want him to have what you are receiving?

Colonel ROOSEVELT. Yes, sir. The majority of the other departments have more than \$3,000 for their chief clerks.

Mr. KELLEY. What does the chief clerk for the War Department get?

Mr. CURTIS. \$4,000.

Mr. KELLEY. Does any chief clerk that you know of get \$5,000?

Mr. CURTIS. No, sir; but under the reclassification they hope to go up to \$5,000.

Mr. KELLEY. That is one of the troubles about this matter of fixing salaries, because they are to be fixed so soon under the reclassification bill. At what amount is this item fixed in that bill?

Mr. CURTIS. At \$5,100.

Mr. KELLEY. For the private secretary to the Secretary you ask an increase from \$2,500 to \$3,600.

Mr. CURTIS. Mr. Denby is very much interested in that. I have a statement here that will show some of the decreases we have already made.

NOTE.—The following is a statement showing the number of employees in Navy Department proper at Washington on various dates from April 1, 1917, just before we entered the war, up to and including January 1, 1922, viz:

Apr. 1, 1917	.....	14
Nov. 11, 1918	.....	14
June 30, 1920	.....	14
June 30, 1921	.....	14
Jan. 1, 1922	.....	14

It will be noted from the foregoing statement that the Navy Department reduced the number of its employees from 6,388 on November 11, 1918, to 4,000 on January 1, 1922, and, further, that while the number of employees increased about 700 per cent on account of the war it is now but 80 per cent greater.

¹ 4,000 of this number were naval reservists who were performing clerical work, and whom were afterwards given civilian appointments under the provisions of the act of June 1919.

the war. This increase is a perfectly natural and legitimate one, caused by the increased size of the Navy, both in material and personnel, but by its increased activities in certain lines, such as aviation and the naval service, which, as the committee is no doubt aware, is turning into the artery of the United States as miscellaneous receipts hundreds of thousands each year on account of commercial radio work performed during that

showing the increase in the size of the Navy above given as one of the reasons for the increase in clerical force. I would call your attention to the following figures for the fiscal years 1917 and 1922:

	Fiscal year 1917.	Fiscal year 1922 (Dec. 31, 1921).
of civilian employees in Naval Establishment.....	35,265	58,771
of establishments in which civilians were employed.....	14	205
and enlisted men (including reservists).....	57,898	133,451
in the Navy (including those under construction).....	410	897

CLERICAL FORCE, SECRETARY'S OFFICE.

Secretary's office of the Navy Department is a large office, consisting of the following divisions:

Secretary's immediate office, (2) Assistant Secretary's immediate office, chief clerk's office, (4) appointment division, (5) record and file division, department supply division, (7) department disbursing office, (8) department post office, (9) quarterly survey office, inventions, and carpenter shop. Following statement shows the number of employees in the Secretary's office of various dates from April 1, 1917, to March 1, 1922:

1917.....	60
1918.....	139
1920.....	138
June 30, 1921.....	114
March 1, 1922.....	96

In the foregoing statement it will be noted that the Secretary's office had a reduction in the number of its employees from 138 on June 30, 1920, to March 1, 1922, or a total of 42, and, further, that while the number of employees in the Secretary's office increased 130 per cent as compared with 1917, for the entire Navy Department, it is now but 60 per cent greater before the war, this increase, as in the case of the Navy Department as a whole, being a perfectly natural and legitimate one, caused by increased activity and additional work thrown on the office.

KELLEY. Let us get this straight first: You are asking for one stenographer at \$1,200 instead of one at \$1,800 and one at \$1,200. Do you want to drop out one stenographer?

CURTIS. That is due to transfers to where they happen to be needed. There are transfers from and transfers to.

KELLEY. This one is to be transferred to the Office of Naval Intelligence?

CURTIS. Yes, sir.

KELLEY. Are all the other changes you have indicated here transfers, also?

CURTIS. Yes, sir.

Eight of this number were naval reservists performing clerical work. The reason why no decrease is shown between November 11, 1918, and June 30, 1920, is because of the very large amount of work devolving upon the appointment division in taking over into a civilian status naval reservists engaged upon work performed by civilian employees as provided in the act of July 11, 1918, and in taking over by the record and file division of aviation files.

Mr. KELLEY. You are asking for no increases in salary increased number of positions?

Mr. CURTIS. No, sir; except those two.

TEMPORARY EMPLOYEES.

Mr. KELLEY. Referring to the temporary or lump-sum for last year you had a lump sum of \$45,000, and you are \$58,340.

Mr. CURTIS. That is due to the fact that there are already there who are detailed to the Secretary's office in bureaus. The number is shown there.

Mr. KELLEY. This increase in the lump sum is due to from other offices to yours?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. But it does not involve any increase in pay or number of positions?

Mr. CURTIS. No, sir. On the contrary, a reduction of five positions will result.

Mr. KELLEY. Where does this \$2,400 clerk come from?

Mr. CURTIS. From the Bureau of Construction and Repair.

Mr. KELLEY. He has been carried before on the roll of the of Construction and Repair?

Mr. CURTIS. Yes, sir. I would like to insert the following clearing up the matter of details of employees.

LEGISLATIVE, EXECUTIVE, AND JUDICIAL APPROPRIATION BILL, NAVY

The following is a statement of details to and from bureaus showing all cases where bureaus have increased their estimates to take care of on detail from other bureaus, corresponding decreases have been in estimates of the bureaus from which detailed; that there has been no in force asked by any bureau; also shows a net decrease of \$66,330.

	Statutory.	Lump sum.
Secretary's office:		
Appropriated, 1922.....	\$72,800.00	\$45,000.00
Plus details from other bureaus.....		
Less details to other bureaus.....		
Estimated for 1923.....	75,180.00	
Decrease.....		
Solicitor:		
Appropriated, 1922.....	22,980.00	
Estimated, 1923.....	22,980.00	
Decrease.....		
Naval records and library:		
Appropriated, 1922.....	21,000.00	
Estimated, 1923.....	20,000.00	
Decrease.....		
Judge Advocate General:		
Appropriated, 1922.....	26,810.00	
Plus details from other bureaus.....		
Estimated, 1923.....	26,810.00	
Decrease.....		

	Statutory.	Lump sum.	Total.
ted, 1922.....	\$25,650.00	\$40,000.00	\$65,650.00
ls to other bureaus.....			2,500.00
l, 1923.....	26,650.00	33,920.00	63,150.00
.....			60,570.00
.....			2,850.00
ms:			
ted, 1922.....		150,000.00	150,000.00
ls to other bureaus.....			8,500.00
.....			141,500.00
, 1923.....		134,300.00	134,300.00
.....			7,200.00
ted, 1922.....	100,010.00	250,000.00	350,010.00
ls to other bureaus.....			1,400.00
.....			348,610.00
, 1923.....	101,010.00	248,600.00	349,610.00
for Chief Clerk.....			1,000.00
nce:			
ted, 1922.....	16,500.00	15,000.00	31,500.00
s from other bureaus.....			1,800.00
.....			33,300.00
s to other bureaus.....			1,600.00
.....			31,700.00
, 1923.....	17,650.00	13,380.00	31,030.00
.....			670.00
office:			
ted, 1922.....	120,760.00	110,000.00	230,760.00
, 1923.....	109,540.00	109,490.00	219,030.00
.....			11,730.00
ory:			
ed, 1922.....	56,400.00		56,400.00
1923.....	56,400.00		56,400.00
ae:			
ed, 1922.....	18,420.00	1,500.00	19,920.00
923.....	18,420.00	1,500.00	19,920.00
ed, 1922.....	32,390.00	100,000.00	139,390.00
s to other bureaus.....			18,120.00
.....			121,270.00
1923.....	35,390.00	80,000.00	116,390.00
.....			4,880.00
id Repair:			
ed, 1922.....	59,830.00	80,000.00	139,830.00
s to other bureaus.....			17,340.00
.....			122,490.00
1923.....	60,830.00	56,630.00	117,460.00
.....			5,030.00
ed, 1922.....	31,830.00	40,000.00	71,830.00
1923.....	32,830.00	36,400.00	69,230.00
.....			2,000.00
counts:			
ed, 1922.....	101,430.00	250,000.00	351,430.00
(from other bureaus.....			2,120.00
.....			353,550.00
to other bureaus.....			8,900.00
.....			344,650.00
1923.....	83,700.00	245,420.00	329,120.00
.....			15,530.00

Medicine and Surgery:

Appropriated, 1922.....
 Estimated, 1923.....

Decrease.....

Yards and Docks:

Appropriated, 1922.....
 Less details to other bureaus.....

Estimated, 1923.....

Decrease.....

Aeronautics:

Appropriated, 1922.....
 Plus details from other bureaus.....

Estimated, 1923.....

Increase.....

Chief clerk's salary \$2,250, plus \$1,000 increase, submitted.

RECAPITULATION OF DETAILS TO

Secretary's office.....	
Judge Advocate General.....	
Operations.....	
Compensation board.....	
Navigation.....	
Office Naval Intelligence.....	
Engineering.....	
Construction and Repair.....	
Supplies and Accounts.....	
Yards and Docks.....	
Aeronautics.....	
Construction and repair of vessels.....	
Total.....	

Secretary's office.....	
Solicitor.....	
Library.....	
Judge Advocate General.....	
Operations.....	
Compensation board.....	
Navigation.....	
Naval Intelligence.....	
Hydrographic Office.....	
Naval Observatory.....	
Nautical Almanac.....	
Engineering.....	
Construction and Repair.....	
Ordnance.....	
Supplies and Accounts.....	
Medicine and Surgery.....	
Yards and Docks.....	
Aeronautics.....	
Total.....	

Net decrease.....

the foregoing statement shows 55 details from or to various bureaus and offices of the Navy Department, and further shows that in every case in which an increase is estimated for in a bureau or office on account of details, a corresponding decrease has been made in the estimates of other bureaus or offices on account of such details. Since the preparation of the estimates on September 4 additional details have been made to the Bureau of Aeronautics, namely: 1 at \$1,200 from Navigation, 1 at \$1,200 from Engineering, 1 at \$1,100 from Yards and Docks, 1 at \$1,000 from Yards and Docks; and these amounts should therefore be added to the Bureau of Aeronautics and deducted from the amounts from which they have been detailed.

LIBRARY, CONTINGENT EXPENSES.

Mr. KELLEY. For contingent expenses, library, your current appropriation is \$2,000, and you are asking the same amount.

Mr. CURTIS. That is for the library.

Mr. KELLEY. What is this money used for?

Mr. CURTIS. Principally for books. It is for technical books of all kinds. We have tried to have it increased for many years, but we have not succeeded.

Mr. KELLEY. How many volumes are there in the library?

Mr. CURTIS. I can put that in the record. It is quite a large library. About 52,000 volumes.

Mr. KELLEY. This is simply to buy technical books and periodicals?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. It is the same amount you have had for a great many years?

Mr. CURTIS. Yes, sir.

CONTINGENT EXPENSES, NAVY DEPARTMENT.

STATIONERY, FURNITURE, NEWSPAPERS, ETC.

Mr. KELLEY. For contingent expenses for the Navy Department you have an appropriation of \$75,000, and you are reducing that in your estimate to \$70,000.

Mr. CURTIS. Yes, sir. For this present year we have obligated \$38,000 and still have \$37,000 as of March 1, 1922. We will get through the year all right and will probably turn \$10,000 into the surplus. Last year we had \$100,000 and we turned back into the Treasury \$9,480. Of course, we are still drawing on the excess of chairs, desks, and things of that kind that we had during the war. We do not buy any new typewriters.

Mr. KELLEY. This is used for incidental expenses, stationery, furniture, drafting materials, upkeep of automobiles, typewriters, adding machines, postage, etc.?

Mr. CURTIS. Yes, sir.

Mr. BYRNES. How much longer will your supplies of furniture and typewriters last?

Mr. CURTIS. It is pretty difficult to say, but I imagine they will last out materially for a year or so yet.

Mr. BYRNES. For another year anyway?

Mr. CURTIS. Yes, sir; there is a rather odd thing about the typewriter situation. We are buying secondhand typewriters from the General Supply Committee excess now. For a long time we bought

typewriters at \$62.50 and used them for a year, then changed them at an allowance of \$50 for a new machine. The Government has had this large excess we are comparing these machines much longer than three years and the expenditure is \$50 each year.

Mr. KELLEY. This is expended under the direct control of the Navy?

Mr. CURTIS. Yes, sir; we make the allotments. We have back \$5,000 worth of material to the General Supply Catalogue each year.

PRINTING AND BINDING.

Mr. KELLEY. For printing and binding for the Navy you have an appropriation of \$250,000 this year?

Mr. MOSES. We are asking the same amount for this year. We spent about \$225,000 of our appropriation in 1921 and had about \$30,000 worth of uncompleted work in the Printing Office on June 30, 1921, that they were carrying over and, of course, that was charged against the appropriation. The same condition will exist next June and we are not capped to that extent.

Mr. BYRNES. You can count on a reduction in the printing and binding, can you not, during next year?

Mr. MOSES. I think there will be some slight reduction.

Mr. BYRNES. The representative of the Printing Office on one of the subcommittees that we could count on a 15 per cent on paper and stuff of that kind to reduce the total cost.

Mr. MOSES. I know there has been some reduction but I do not know how much.

Mr. BYRNES. That is what they are figuring on at the Printing Office for next year.

Mr. MOSES. That would help us that much, of course.

Mr. KELLEY. This \$250,000 is spent for printing and binding in the Navy's office?

Mr. MOSES. No, sir; it is for printing for the Navy and for a great deal that is required by the Navy. All of our blank forms—and millions of blank forms—are printed from this.

Mr. KELLEY. Can you do all of that work for \$250,000?

Mr. MOSES. We do that; yes, sir.

Mr. KELLEY. Do you not have another fund?

Mr. MOSES. Yes, sir; in addition to that we have.

Mr. KELLEY. What does that amount to?

Mr. MOSES. The estimate for 1923 is \$350,000. It is \$298,000 for 1922, \$498,000 in 1920, \$1,050,000 in 1919, and nearly \$1,000,000 in 1918. This year it is estimated at \$398,000.

Mr. BYRNES. Explain that item.

Mr. MOSES. Those are naval appropriations for printing for naval purposes. You authorize the printing of the specifications, etc., out of the appropriation for construction and machinery. It all depends on the amount in the naval service as to how much is spent.

Mr. BYRNES. I mean, where do you get your repay part of it?

Mr. MOSES. Well, the Printing Office does the work on our requisitions; they send us the bill and we pay it out of the naval appropriations, "Construction and machinery," "Ordnance and ordnance stores," etc.; there are 20 or 30 different appropriations out of which we pay for printing.

Mr. BYRNES. That makes the total amount you have available for printing and binding what?

Mr. MOSES. There is no certain amount in the naval appropriations which we consider available for printing and binding. If you give \$100,000,000 for increase of the Navy we may use \$5,000 or \$10,000 whatever is necessary for printing. There is no limitation.

Mr. KELLEY. Do you mean that if the Bureau of Supplies and Accounts places an order with you for printing they pay you for it?

Mr. MOSES. No, sir; they pay the printer; he renders a bill.

Mr. KELLEY. Does this \$250,000 come to you or to the printer?

Mr. MOSES. That is paid direct to the printer; it is a transfer of appropriations on the Treasury books.

Mr. KELLEY. Is \$600,000 your estimate for all the printing that is done in the Navy Department during the coming year?

Mr. MOSES. That is our estimate for the coming year.

Mr. KELLEY. How is that distributed among the bureaus?

Mr. MOSES. The naval appropriations are simply used as the printing is required. When you authorize certain public works they need plain specifications to carry on their work and the same is true of the Navy. It all depends on the amount of naval activity; at present, we have \$420,000,000 or \$430,000,000 this year, and we are only expending \$398,000 for printing, showing that we are not printing any more than we need.

Colonel ROOSEVELT. We had a meeting of the council at one time and discussed the reports that were being printed; we tried to eliminate certain of the reports, and we did eliminate some, but instead of eliminating them as separate bureaus we treated them as a general problem entirely, and that is the way we have been treating the entire situation.

Statement of savings in annual reports follows:)

Saving on annual reports.

	1920 reports.	1921 reports.	Savings.
Line and Surgery.....	\$2,060.72	\$947.73	\$1,112.99
Finance.....	119.79		119.79
Food and Docks.....	46.16		46.16
Hygiene.....	241.84		241.84
Graphic Office.....	108.15		108.15
Observatory.....	112.95		112.95
Engineering.....	303.59		303.59
Construction and Repair.....	524.59		524.59
Files and Accounts.....	23,700.39	11,189.57	12,510.82
Advocate General.....	219.06		219.06
Director.....	84.22		84.22
Naval Corps.....	103.25		103.25
Secretary's office.....	4,493.82	522.36	3,971.46
Department.....	1,249.49	1,950.00	1,299.49
Total.....	33,368.02	13,609.66	19,758.36

Estimated.

Mr. KELLEY. And hereafter you are going to estimate for the entire Navy Department?

Colonel ROOSEVELT. Yes, sir; we are treating it as a continuation.

Admiral COONTZ. I do not think he understood you.

Mr. KELLEY. Let us get it straight in the record. Roosevelt wrong?

Admiral COONTZ. We do not make an entire appropriation for the Navy Department.

Colonel ROOSEVELT. No; and that is not what I meant was that we were treating it as an entire appropriation to cut down expense.

Mr. KELLEY. I am not quite clear as to just what printing, amounting to \$250,000, is for.

Mr. MOSES. That is the printing for the Navy and its bureaus; millions and millions of blank forms for the purchase of millions of dollars' worth of supplies, etc.

Mr. KELLEY. And, in addition to that, they can include other appropriations sums of money for printing?

Mr. MOSES. Whatever is required for naval purposes.

Mr. KELLEY. Without any limitation?

Mr. MOSES. Yes, sir. The most we have ever had and that was when we had \$2,000,000,000 available.

Mr. KELLEY. You have here a statement appended for printing, starting with 1916?

Mr. MOSES. Yes, sir.

Mr. KELLEY. I think, perhaps, you had better put it in the record.

(Said statement follows:)

Comparative statement, printing and binding, Navy.

Year.	Repay.	A
1916.....	\$194,283.00	
1917.....	471,289.04	
1918.....	964,344.75	
1919.....	1,033,197.85	
1920.....	498,192.16	
1921.....	1,608,070.55	
1922 (8 months).....	265,408.39	
1923 (estimated).....	350,000.00	

¹ The increase for 1921 over 1920 undoubtedly caused by section 11 of that act all printing and binding shall be done at the Government Printing Office field service.

² This figure represents amount of work billed and nearly completed. Printing Office not completed, leaving available unobligated amount for 8 months of the fiscal year.

Mr. KELLEY. Admiral, I take it to be the purpose to hereafter include in this item all the printing for the Navy Department and estimate for it in one place.

Admiral COONTZ. No, sir. This is not an appropriation. You are not appropriating any money for this item for the various bureaus. It is not anything for which the Navy is appropriating any money.

LEY. That is to say, the money is already in other appro-

COONTZ. Yes; and they pay the Public Printer through the printer's office.

LEY. Would it not be more business like for us to take the money out of the other appropriations and have you estimate the cost separately?

COONTZ. I think it might be seriously considered. It is a matter that never came up before and I never heard of it. This is a new appropriation bill and we are talking about something new in our appropriation, but I think it is worthy of consid-

LEY. Mr. Moses, the statement you hand me shows the amount that have been paid by the other bureaus in addition to what was expended?

ES. In addition to the departmental fund; yes, sir.

LEY. This gives not only the total expenses of the Secretary but of all the Navy Department?

ES. Yes, sir; every bureau in the naval establishment. It shows the appropriations out of which we print for the field.

LEY. I think it would be a good idea to put that in the statement follows:)

Repay printing, Navy Department.

Appropriation.	Fiscal year 1921.	Eight months of fiscal year 1922.
Account fund.....	\$6,658.49	\$74,723.41
Administration.....	10.19	297.46
Machinery.....	32,523.99	8,264.41
Navigation.....	3,446.15	168.12
Stores.....	102,064.82	27,452.99
United men.....	16,560.78	3,091.49
Medicine and surgery.....	42,663.33	17,253.40
Various expenses, Naval Academy.....	944.76	1,246.84
Account, general account of advances.....	96,822.23	.....
Engineering exercises.....	28,270.79	8,964.11
Ships and docks.....	14,734.50	9,730.94
Finance stores.....	38,473.90	20,153.45
Station, Great Lakes.....	53.38	.....
torpedo boats.....	4,016.34	2,264.20
.....	24,770.35	7,638.12
Repair.....	17,164.14	9,312.56
Supplies.....	10,586.39	9,285.96
Reserves.....	7,076.77	23,204.83
Survey.....	67,561.92	5,858.86
Naval Home.....	71.69	39.58
Supplies and accounts.....	24,273.02	24,168.55
Repairs, Naval Academy.....	4,800.29	302.67
.....	4,569.71	.....
.....	5,836.06	172.60
Consulting Board.....	3,068.16	.....
Receipts, proceeds of sale.....	3,554.11	1,197.64
Res, Naval Academy.....	684.72	.....
Naval stores fund.....	512.12	1,244.34
Various expenses, Hydrographic Office.....	5,019.27	.....
.....	.....	75.12
.....	566,782.36	256,101.65
.....	41,288.19	9,306.74
.....	606,070.55	265,408.39
.....	50,672.55	33,176.05
Fiscal year 1922.....	.....	398,112.60

WEDNESDAY, MARCH 22, 1921

PAY, MISCELLANEOUS.

STATEMENTS OF HON. EDWIN DENBY, SECRETARY OF THE NAVY: COL. THEODORE ROOSEVELT, ASSISTANT SECRETARY; MR. J. H. CURTIS, CHIEF CLERK; ADMIRAL ROBERT E. COONTZ, CHIEF OF NAVAL OPERATIONS; LIEUT. COMMANDER HARRY W. HILL, JR., TO THE ADMIRAL; REAR ADMIRAL DAVID POTTER, CHIEF OF BUREAU OF SUPPLIES AND ACCOUNTS; CAPT. T. W. LEUTNER, ASSISTANT; MR. CLYDE REED, SPECIAL ASSISTANT; REAR ADMIRAL JOHN K. ROBISON, CHIEF OF BUREAU OF ENGINEERING; CAPT. GEORGE W. STEELE, JR., BUREAU OF NAVIGATION; CAPT. LUKE McNAMEE, INTELLIGENCE DIVISION; COMMANDER LEON NOYES, OFFICE DIRECTOR NAVAL COMMUNICATIONS; REAR ADMIRAL J. L. LATIMER, JUDGE ADVOCATE GENERAL; AND COMMANDER G. J. ROWCLIFF.

COMMISSIONS AND INTEREST, TRANSPORTATION OF FUNDS, EXCHANGE

Mr. KELLEY. Pay, miscellaneous: For commissions and interest etc. This item covers a long list of purposes for which last year you had \$3,500,000. What is your revised estimate this year?

Admiral POTTER. \$3,255,000. I am charged with subheads 1, 9, and 11.

Mr. KELLEY. Suppose we go right down the list and subhead in the different officers as we reach the various items.

Admiral POTTER. Shall I go ahead with subhead 1?

Mr. KELLEY. Yes.

Admiral POTTER. This subhead is chargeable with losses on bills of exchange and with adjustments from the purchase rate of foreign currencies to the Treasury issue rate. It is creditable with "gains on exchange."

Under a decision of the Comptroller of the Treasury dated February 28, 1921, the Navy has authority to purchase and issue foreign depreciated paper currency at the actual cost to the United States. It must, however, in the case of countries still on their normal gold or silver basis, issue such currencies at the mint par value.

The country in which gains or losses on exchange are most frequently incurred is China. The Treasury Department sets a rate monthly for the issue of Chinese, Mexican, Yuan, and Hong Kong dollars. This rate is based on the average commercial price of silver bullion. The rate at which this currency is purchased is of course fixed by the supply and demand between China and the United States for commercial credit. Apparently from July 1 to date the cost to the United States per unit of these currencies has been greater than the issue rate fixed by the Treasury, and therefore has resulted in an average loss chargeable to subhead 1 of this appropriation.

The following table shows the issue rate of the Mexican dollar in China set monthly by the Treasury Department:

1921--July

August

September

October

—November	\$0. 5631
December .....	. 5395
—January .....	. 5224
February .....	. 5171
December .....	. 5187

generally speaking, there should always be a net loss chargeable to this subhead for the reason that, as foreign currencies are based on the metal contained as compared to United States currency, foreigners naturally charge a premium in purchasing bills of exchange for an amount sufficient to cover the interest on the money tied up between date of purchase and date of liquidation of a bill of exchange. Furthermore, this subhead is chargeable with any loss on exchange due to sale of foreign currency before a ship leaves the country in which it is current. That losses on exchange have been largely reduced is apparent from the following—

r. KELLEY. That is \$100,000?

Admiral POTTER. Yes, sir. I have a statement which shows how it has run during the past three years. In 1919 it was almost 100,000; in 1920 it was again almost \$2,000,000; in 1921 it was 1,000,000, in round numbers; and in 1922 it looks as though it will be 200,000.

r. KELLEY. If silver should become more valuable you would not do anything; is that right?

Admiral POTTER. If you care to construe it in that manner.

r. KELLEY. Is not that the secret of this thing, that when silver goes low you had to make up the difference?

Admiral POTTER. The Treasury fixes the rate at which we can redeem our issues. However, we have to purchase it for what it costs in the market. If a yen costs 60 cents we must issue it at 53 cents, according to Treasury Department regulations, and hence there would be a loss on every piece of money handed out.

r. KELLEY. That is to say, the boys who convert their money from Chinese money, we will say, on the basis of a fixed regulation, would lose money if the price of silver were higher than when you made your regulation, and you would have to make up the difference?

Admiral POTTER. That is what it amounts to; yes, sir.

MILEAGE TO OFFICERS.

r. KELLEY. The next is mileage to officers.

Captain STEELE. The current allotment for the subhead 2 is \$1,000,000. The Bureau of Navigation requested \$700,000, because in fiscal year 1921 \$780,000 was expended under that subhead; but the Budget officer has allocated \$650,000 under the estimates for 1923.

r. KELLEY. Does this cover the entire clause contained in the heading:

"Mileage to officers of the Navy and Naval Reserve Force while traveling on orders in the United States, and for actual personal expenses of officers of the Navy and Naval Reserve Force while traveling abroad under orders, for traveling expenses of civilian employees, and for mileage, at 5 cents a mile, to midshipmen entering the Naval Academy while proceeding from their homes to the Naval Academy for examination and appointment as midshipmen."

Admiral POTTER. No, sir; subhead No. 2 does not include traveling expenses of civilian employees.

Mr. KELLEY. One part taken out of that clause is for the expenses of civilian employees?

Captain STEELE. Yes, sir; but it includes the traveling of female nurses.

Mr. KELLEY. There is a clause ending with the word "men." Have you a copy of the bill before you?

Captain STEELE. No, sir; I have not.

Admiral COONTZ. That subhead stops after the words "nurses."

Mr. KELLEY. Mileage to officers of the Navy and Naval Force while traveling under orders in the United States. It is that?

Captain STEELE. We have not that split up, Mr. Kelley.

Mr. KELLEY. What are the details of the \$650,000 as worked them out?

Captain STEELE. I have no statement showing what part requires certain sums; I only have the total that we expended in year 1921.

Mr. KELLEY. And that was \$780,000?

Captain STEELE. Yes, sir.

Mr. KELLEY. And you are making a reduction, I presume, of the economies you have put into effect, perhaps, since that time—idea?

Captain STEELE. Yes, sir. We have reduced the travel of and others to a minimum and have utilized Government transportation to the fullest extent.

NUMBER OF REGULAR OFFICERS 1921.

Mr. KELLEY. Do you remember how many regular officers in the Navy in 1921?

Captain STEELE. Yes, sir; we had about 5,300; at least, it was an average.

Mr. KELLEY. I suppose that included the reserve officers on active duty at that time?

Captain STEELE. No, sir; that would include the temporary of which we dispensed with about 1,100 last December.

Mr. KELLEY. Then you had 5,300 line officers, and how many warrant officers?

Captain STEELE. There has been very little change in the number of officers, sir.

Mr. KELLEY. Then about 2,000?

Captain STEELE. Yes, sir; and about 1,300 warrant officers and staff.

Mr. OLIVER. When did you dispense with 1,100—

Captain STEELE. The temporary officers were all dispensed with on the 31st of December, but we began dispensing with the line officers on the 1st of January.

Mr. OLIVER (interposing). Do you happen to know how many officers were estimated for in the Budget of 1923?

Captain STEELE. They were not, sir.

Mr. OLIVER. In other words, you had communicated the fact that intended to dispense with them and they were not included in Budget estimate for 1923?

Admiral COONTZ. It was by operation of law.

Mr. KELLEY. The law provided that on a certain date you might have over a certain number, not to exceed a certain number, and that others would have to be discharged?

Admiral COONTZ. Yes, sir.

Secretary DENBY. Not to exceed 1,200.

Mr. KELLEY. Does this include commissioned and warrant officers when they travel?

Captain STEELE. Yes, sir.

Mr. KELLEY. How many of those did you have in 1921?

Captain STEELE. Eight thousand seven hundred and twenty-one on 1, 1921.

Mr. KELLEY. You can put that in accurately, but for the purposes of calculation, can you give us offhand how many there were?

Admiral COONTZ. We increased them because some went back to warrant officers; my guess would be about 1,200 in 1921 and 1,360 in 1922. Is not that right?

Captain STEELE. That is fairly accurate, I think, sir.

Mr. KELLEY. That is, there would be 1,200 in 1921 and more now?

Captain STEELE. Yes, sir.

Mr. OLIVER. Admiral Coontz, state whether or not you feel the needs of the Navy will be fully met with some diminution in your personnel in the warrant grades and petty officer grades.

Admiral COONTZ. That would be entirely for Admiral Washington, who is in entire charge of the business, to discuss with you, and I do not know. I will have to make an inquiry and put an answer in the record.

Mr. OLIVER. I wish you would.

Admiral COONTZ. Very well.

RE.—After consulting with Admiral Washington, I find that we have just enough boatswains (when I say boatswains I include chief boatswains; also for gunners, etc.). There is a small excess of ordnance gunners, but this is reduced by the probable retirement of ex-gunners, who were commissioned lieutenants after fifteen years service. There is also an excess of electrical engineers, but a considerable shortage in radio gunners. The number of carpenters and pharmacists is slightly in excess of the requirements. The number of clerks is about correct. We are short of machinists. As much for the warrant officers. The service has an excess of petty officers, due to the large number which were rated for service on auxiliary and other vessels during the war and the many vessels placed out of commission since the close of the war.

Mr. KELLEY. This coming year the number of officers of the line is

Admiral COONTZ. Four thousand one hundred and four hundred, I

Mr. KELLEY. Four thousand one hundred in round numbers?

Admiral COONTZ. Yes.

Mr. KELLEY. There are 4,100 of the line, and you say there are more, which would make 4,500?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Including the naval auxiliary service?

Captain STEELE. Yes, sir.

Mr. KILLEY. If we take out those 400, tl you say 2,000 in the staff, which would m Admiral, the warrant grades would now b

Admiral COGENTZ. Yes; I think they we guess would be about 1,300 against 1,200.

Mr. KILLEY. \$700,000, that was the act last year?

Captain STEELE. \$730,000.

Mr. KILLEY. Based on an estimate of 8.5

Captain STEELE. Yes, sir.

Mr. KILLEY. This would run up to ab year, and you have made the deduction of figures would bear to each other?

Captain STEELE. Practically; yes, sir.

Mr. BYRNES. You have made a reduction

Captain STEELE. From \$730,000 to \$660,0

Mr. BYRNES. That is due to the reduction any economies that were effected?

Captain STEELE. The Bureau of Navigati the Budget officer allocated \$650,000.

Mr. KILLEY. And your estimate now is \$

Admiral COGENTZ. No; \$650,000.

Captain STEELE. \$650,000.

Admiral COGENTZ. The Budget officer n going into the situation very carefully, th everything, and reduced it that much.

Secretary DEXY. The reduction of per the inference during the period the reducti and you have to bring the men home—the

Mr. KILLEY. You will probably bring the Secretary DEXY. Even then they would have to die.

Mr. KILLEY. These are officers?

Secretary DEXY. But they have to be g the same old ships.

Mr. KILLEY. They are not discharged?

Secretary DEXY. But should there be a reduction have to be gotten home.

Mr. KILLEY. There is not any reduction necessary, none made.

Mr. BYRNES. I think there is a misunderstanding that we are talking about men. We are talking about ships; there is no reduction proposed.

Admiral COGENTZ. The final number is 8 ships for the year.

Mr. KILLEY. A general, how do you handle the cost of the navy in collecting the g expenses of your plans of operation?

Admiral COGENTZ. The method is, as far as possible, to send detachments as possible, an the Pacific to the Atlantic, and from the Atlantic to the Government transports where

the fleet is now in the Pacific, and the homes of the officers and men are in the East. Also, the center of population is still east of the Mississippi River. For that reason it is a little unbalanced. If most of them lived west of the center of Kansas it would be different, but we move them all we can by public transports. Whenever we send an officer on a ship making the trip. The other day we sent an officer to Charleston. We had a destroyer going from Philadelphia to Charleston and we sent the officer to Philadelphia that ship. We are watching the mileage with the utmost care every tendency to economy.

TRAVELING EXPENSES, CIVILIAN EMPLOYEES.

Mr. KELLEY. The next item is, "Traveling expenses of civilian employees"?

Mr. CURTIS. The allotment is \$270,000. For this reason, in July Secretary sent out a warning—

The appropriation "Travel expenses of civil employees" will not be sufficient to cover the cost of travel of civilian employees during the fiscal year unless the department exercises rigid economy in travel expenses and no travel be performed except that which is absolutely necessary. In connection the department desires to most forcefully emphasize that the "absolutely necessary" shall not be used to cover things needed merely for the purpose of desirability or convenience.

The expenditures up to January 31 amounted to \$131,000. That leaves a balance of \$139,000, which would indicate that we can get through the year all right. For 1923 they reduced the estimated allotment to \$240,000.

Mr. KELLEY. What are these civilian employees mostly?

Mr. CURTIS. They are mostly draftsmen and technical employees who have to go out for inspection purposes.

Mr. KELLEY. Will not that fall off quite a bit the coming year because of the reduction in the building program?

Mr. CURTIS. We have anticipated that cut by taking off \$30,000 from our estimate. As to whether it will be greater than that, we can tell at the present time.

Mr. KELLEY. I suppose that possibly the scrapping and all that make inspection and travel quite necessary?

Admiral COONTZ. Yes, sir; for a year or two. While under the terms of the treaty we are scrapping, this travel would have to be continued on. In addition, there are some things that will keep on. For instance, repairs to radio installation. A tower blows down, and we would probably send the people from the nearest station to repair it.

Mr. KELLEY. That is what you had in mind, that there would be an increase in the demand for the technical people?

Admiral COONTZ. Yes, sir; at the time we put that in.

Mr. KELLEY. With the broader light, showing the path a little clearer, possibly you can reduce it a little further?

Admiral COONTZ. No, sir; I do not think so. We cut it down as far as we thought we could do with safety.

Mr. KELLEY. Have you the figures showing the travel expense of the employees in 1916?

Mr. CURTIS. No, sir. I can introduce that into the record, because we make the report every year. For 1916 as compared with the year?

Mr. KELLEY. If you please.

Mr. REED. I have it not at hand.

Mr. KELLEY. You can put it in the record?

Mr. CURTIS. Yes, sir.

NOTE.—For 1916, \$60,934.12; for 1921, \$405,169.16.

Mr. KELLEY. Of course, the rate of transportation is higher it was in 1916, and I well understand that for a few months at any time there might be quite a bit of travel.

Mr. BYRNES. In making the reduction you could not judge travel that might be necessary in connection with the scrapping.

Admiral COONTZ. I will say positively that I went over this on the 3d of March and cut it down to \$240,000.

Mr. KELLEY. You went carefully over the travel when you toted the \$30,000?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You have industrial plants all over the country work going on?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And you have to have inspectors go there and after that?

Admiral COONTZ. There is more or less travel which we just do not stop.

Commander HILL. There is so much unknown. In the first place the treaty has not yet been ratified and the stoppage has been temporary. We do not know how much travel will be needed.

Mr. KELLEY. This is open at both ends just yet?

Commander HILL. Yes, sir.

Mr. KELLEY. Is there anything else, Mr. Curtis?

Mr. CURTIS. I have three other items that will come later, but they are all on this item.

ACTUAL EXPENSES OF OFFICERS WHILE ON SHORE PATROL DUTY, IN LAUNCHES, ETC.

Mr. KELLEY. "Actual expenses of officers while on shore patrol duty"?

Admiral POTTER. That is assigned to me, together with launches or other small boats in Asiatic waters, relief of vessels in distress, recovery of valuables from shipwrecks, quarantine expenses, claims for damages for loss of property, ferrriage, tolls—street fares—and other necessary and incidental expenses.

Mr. KELLEY. How much is that?

Admiral POTTER. The total we have estimated for is \$300,000.

Mr. KELLEY. That is quite a different classification?

Admiral POTTER. Yes, sir; it is a catchall. That is subhead 11. It is a catchall for what you can not classify elsewhere, but it is assembled somewhere. Without too much clerical labor we find it impracticable to submit any detailed distinction between different groups and they are assembled under subhead 11.

Mr. KELLEY. How much is that?

Admiral POTTER. \$300,000 we estimate. In 1921 the actual expense was two hundred and eighty-three and odd thousand dollars, and in this present year it is running \$400,000, but undoubtedly there will be a considerable diminution next year, and we have estimated \$300,000. Each one of these has a voucher; there are records of them. We have not tried to list them here.

Mr. KELLEY. It seems a little odd that these items will cost more next year than in 1921.

Admiral POTTER. There is a slight margin, of course, between the \$300,000 and \$300,000, but we just followed that because these expenses will not probably be diminished, and the expenses of officers on patrol duty have been very heavy on the west coast, around San Diego base, where they have to patrol the shore every day. This is just an estimate. All you can do is to guess at it; you can not expect to be accurate.

RENT OF BUILDINGS AND OFFICES NOT IN NAVY YARDS.

Mr. KELLEY. The next item is "For rent of buildings and offices in navy yards."

Admiral POTTER. In 1921 we had \$590,000 and for the present year \$300,000. With the economies effected since March 4 last, we are estimating for 1923, \$180,000. I have that in detail.

Mr. KELLEY. You have that in detail?

Admiral POTTER. Yes, sir; showing each section of the country; I have every building listed and its purpose.

Admiral COONTZ. We have gone into that with the greatest care, wherever we have been able to obtain a Government building we have done so.

Mr. KELLEY. What is the chief item?

Admiral POTTER. I can pick out two or three. Suppose I read six or seven items in the third naval district, New York. One hundred two hundred and fifteen linear feet of bulkhead space for the Navy supply depot, \$21,000, in round numbers. Then we have a building that is one section of an aircraft storehouse, which is used, how much, as boat storage. That is \$7,000. Then there is land on which warehouses 1 and 2 are located, between Thirtieth and Thirty-third Streets, South Brooklyn, \$46,000. Some land bounded by Second Third Avenues, Thirty-first and Thirty-second Streets, known as the "third lot," \$20,000. Then there is the garage at Taylor Street, \$14,000. Then there is space used by the Naval Medical Department, South Brooklyn, \$9,000, and office of the inspection board uptown, \$1,600.

Admiral COONTZ. We have succeeded in obtaining space for the third district offices in the South Ferry building free of rent.

Mr. KELLEY. How did you happen to get that for nothing?

Admiral COONTZ. New York City is kind to us. I would state I went up to New York myself as Budget officer and went over to look at the buildings about six months ago. We have come down to an estimate of \$180,000 for next year from \$3,250,000 three years ago. We hope that from month to month we can do better. We are every day renting building under constant surveillance and are continually trying to see if we can not get other free buildings from private property, or something like that.

Mr. KELLEY. This does not include the Admiral COONTZ. No, sir.

Mr. KELLEY. There is a special appropriation out of training and recruiting?

Admiral COONTZ. Yes, sir.

PRISONERS AND PRISON EXPENSES

Mr. KELLEY. The next item is, "Prisoners." Commander HILL. The prisoners are at Parris Island, Mare Island, and some at all the cost of heating and lighting the cost of the prisoners, small stores, transportation to and from the prisons, and that they are given on discharge, etc. Newport investigation that took place a year is charged against this appropriation, \$10,000, thousand dollars. In other words, all of the expenses are a sort of catchall; they are not be estimated for exactly.

Mr. KELLEY. How much did you spend last year, Commander HILL. I will have to put that to you.

Admiral POTTER. In 1921 we spent \$400,000.

Mr. KELLEY. How much have you spent this year?

Mr. REED. Up to the 1st of March, \$1,000,000.

Admiral POTTER. The total allowance is \$1,000,000.

Mr. KELLEY. You have made the red line for the number of men?

Commander HILL. Yes, sir; the number of men. On the last count it was 1,346 or 1,350, or thereabouts. There is a certain amount of this appropriation with the number of prisoners. There is the overhead, which, if we had no prisoners, would be maintained. They pay—maintaining heat and light. They pay the cost of investigations, which may be \$40,000.

Mr. KELLEY. When they are discharged, you give them a civilian suit of clothing?

Commander HILL. Yes, sir; a civilian suit of clothing, about \$20. They are now reducing that a little to \$15 and hope to reduce it to \$12 by taking them in the installation they have at Parris Island.

Secretary DENBY. I hope the number of prisoners will be reduced.

Mr. KELLEY. You can control that, Mr. DENBY.

Secretary DENBY. Yes, sir; to a certain extent. For example, that no man under 18 shall undergo a prison sentence or get a discharge. The Navy is going to take in men under 18 and propose to see them undergo a prison sentence. That will help some.

NEWSPAPERS, PERIODICALS, AND BOOKS

Mr. KELLEY. The next item is newspaper and magazine subscription.

Mr. CURTIS. That is an item of \$20,000, advertising, \$6,000; and periodicals, \$14,000.

Mr. KELLEY. What are these—technical papers?

Mr. CURTIS. Technical papers for all of the various bureaus, Medicine and Surgery, Ordnance, Yards and Docks, Supplies and Accounts—all of them. The advertising is in a manner perfunctory—required by law.

Mr. KELLEY. Is this the only fund out of which periodicals and newspapers can be purchased for the whole department?

Mr. CURTIS. There is a small fund for the library.

Mr. KELLEY. Then, this is the only money available?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. The item of newspapers does not mean the ordinary newspaper, does it?

Mr. CURTIS. No; not very many newspapers.

Mr. KELLEY. Mostly periodicals and technical publications?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. How much was this last year?

Mr. CURTIS. Mr. Reed tells me that we spent \$22,000 for the two last years. For advertising up to December 31 we have spent \$20,000. For periodicals we have obligated \$12,000. For 1923 we have estimated \$18,000 instead of \$20,000 for the two items.

Admiral COONTZ. We gave that a straight reduction of 10 per cent the coming year along the general line that we would not need it.

OF SUITS, COMMISSIONS, WARRANTS, DIPLOMAS, DISCHARGES, ETC.

Mr. KELLEY. The next item is copying, costs of suits, commissions, warrants, diplomas, and discharges; stationery and recording; repairs, professional investigations, religious books; cost of special instruction at home.

Captain STEELE. The estimate for 1923 calls for \$147,000 under subhead, of which \$117,000 is for the cost of special instruction to be expended under the postgraduate school of the Naval Academy. The remaining \$30,000 is for the other items under that head. The postgraduate school estimated \$143,000, which has been reduced to \$117,000.

Mr. KELLEY. The bulk of the item is for the postgraduate school?

Captain STEELE. Yes, sir.

Mr. BYRNES. How is that school conducted? "Cost of instruction at home"—what do you mean by that?

Captain STEELE. That is differentiated from the cost of instruction abroad, which comes under Captain McNamee's office. These amounts go to the Naval Academy for one year and then go to various commands, of which I have a list.

Mr. BYRNES. For postgraduate work?

Captain STEELE. Yes, sir.

Admiral COONTZ. I would like to state that out of the last 20 classes at the academy 11 of them were prematurely graduated and we feel we should give these officers further instruction, not only in what was missed, but in the great advances being made all the time.

Mr. BYRNES. Do I understand that you send them to other educational institutions throughout the country?

Captain STEELE. Yes, sir.

Mr. BYRNES. Technical schools?

Captain STEELE. We have 22 at Columbia University, 35 at the Massachusetts Institute of Technology, 4 at Harvard, 6 at the Van Rensselaer University of Michigan, 4 taking special courses, and 8 at Washington University. I also have what they are at

Mr. BYRNES. What are they studying at the George University?

Captain STEELE. Law. They are assigned to duty in the the Judge Advocate General and are taking a course in law at George Washington University.

Secretary DENBY. In Michigan they study in

Captain STEELE. Ordnance chemical explosives.

Mr. BYRNES. A man graduates from the Naval Academy and send him to the University of Michigan to study

Captain STEELE. Explosives; yes, sir.

Mr. KELLEY. Does this include any postgraduate doctors?

Captain STEELE. It does not.

Mr. KELLEY. Why does not the Staff Corps get any instruction?

Captain STEELE. They get special instruction in the School in Washington, and occasionally an Army Corps is sent to the Mayo Clinic in Minnesota.

Mr. KELLEY. What fund is that paid out of?

Captain STEELE. That is paid out of a fund contributed by surgery.

COST OF SPECIAL INSTRUCTION ABROAD.

Mr. KELLEY. For cost of special instruction \$150,000?

Captain McNAMEE. Yes, sir.

Mr. KELLEY. What is this for?

Captain McNAMEE. The items under that are students and attachés, \$95,000; \$25,000 for office expenses for the confidential fund.

Mr. KELLEY. What is that first amount?

Captain McNAMEE. \$95,000 is for the maintenance

Mr. KELLEY. And students. It is mostly attachés?

Captain McNAMEE. Yes, sir.

Mr. KELLEY. Will we have any students abroad?

Captain McNAMEE. We now have three students, and we would like to send students to China.

Mr. KELLEY. The primary purpose in sending them to learn foreign languages?

Captain McNAMEE. Yes, sir. They are supposed to be three years, and then they become proficient in

Secretary DENBY. Do they also study

Captain McNAMEE. Incidentally, but they learn the language in order to fit them for intelligence officers and as attachés abroad.

n sent to those countries should know the languages of the countries to which they go. Otherwise, they will be very much handicapped.

Mr. KELLEY. How many people are in the Office of Naval Intelligence down there?

Captain McNAMEE. We have 9 officers, 23 clerks, and 3 messengers.

ICE WATER.

Mr. KELLEY. The next item is ice water.

Admiral POTTER. That is simply a question of what officers there

In 1921 we spent \$86,521, and in the present fiscal year we are adding \$65,000, or that amount has been allotted, and it looks enough that would just about run us through. For 1923 we are adding \$60,000. Of course, if the activities are diminished, or if any of the offices should be closed, this item could be cut down correspondingly.

Mr. KELLEY. Do they use all this ice water in the Navy Department?

Admiral POTTER. In the Navy Department and the Yards. It does not include the hospitals. We have actually diminished that expenditure. We have cut down the requisitions as they have come and have told them, "you can not have as much ice as you had last month." Even at Key West we have cut down on this item, and we received a vehement protest from the commandant at Key West, saying they have hot weather there all the time.

TELEPHONE AND TELEGRAPH SERVICE.

Mr. KELLEY. For telephone, telegraph, and cable service you are adding how much?

Commander NOYES. We are asking \$300,000. We have for this year \$322,000, which you gentlemen have just increased in the deficiency bill from the original \$250,000. For 1921 we had \$554,000; in 1920 we had \$1,002,000; for 1919 we had \$1,439,000, and for 1918 we had \$903,000.

Mr. KELLEY. What did you have for 1916?

Commander NOYES. The figures that we have for 1916 are \$1,000, but this item was not carried in the same way then. In addition to that, telephone rentals and tolls have been increased practically 50 per cent since that time by public service commissions. Telegraph rates have been correspondingly increased by the Postmaster General.

Mr. KELLEY. But you did not have any radio to speak of then, now you are using four or five million dollars a year for radio service.

Commander NOYES. We went into that question in the other hearing, and Admiral Robison gave you the figures. We had radio service then.

Mr. KELLEY. But it was a very small amount compared with what we have now?

Mr. BYRNES. How much have you spent up to this time out of this year's appropriation?

Commander NOYES. We are spending at the rate of \$322,000. It has all been allotted.

Mr. BYRNES. You estimate \$300,000 for next year?

Commander NOYES. Yes, sir; which will be a further reduction of \$22,000 from this year.

Mr. KELLEY. Why do you not use radio more?

Commander NOYES. We are using it all we can. There is no further reduction that we can make on that account. We never wires where we can use radio; but, of course, it is becoming difficult to use radio, due to increased use by commercial and private interests.

Mr. KELLEY. How much of this is for telephone service, how much for telegrams, and how much for cablegrams?

Estimate for 1923.

Telephone:	
Rentals	\$140,000
Local calls	38,388
Long-distance calls	22,000
Telegraph	100,325
Total	302,323

TELEPHONE RENTALS.

Commander NOYES. \$140,000 is for telephone rentals. That includes the rental of all telephone plants in all the naval establishments. Of course, we have none on board ships, but all of this is on shore. It includes the rental of wires.

Mr. KELLEY. How much do you estimate for the rental of wires?

Commander NOYES. \$48,000 for telegraph and telephone wires.

Mr. KELLEY. Could we not cancel the leases on those wires now get along with that much less telephone and telegraph service?

Commander NOYES. Apparently not. The Secretary has made an effort to reduce the amount of dispatch work and the use of cablegrams.

Mr. KELLEY. I think we might get rid of these special wires, that the war is over.

Secretary DENBY. Can you tell how much these special wires are used?

Commander NOYES. Yes, sir.

Mr. KELLEY. I have no doubt they are used very extensively. It will be so long as it does not cost any more. It does not make a difference whether you send 500 telegrams or 1,000, because the cost would be the same on the leased wires.

Commander NOYES. Yes, sir.

Mr. KELLEY. Therefore the officers will use those wires very extensively instead of the mails.

Secretary DENBY. We have a very stringent order about that.

Mr. KELLEY. Where they have leased wires it does not make a difference how many telegrams they send, because the cost is no different.

Commander NOYES. It is not a matter of general knowledge at the Navy Department, and we do not intend that it shall be a matter of general knowledge, where the leased wires are, and each office is debited on a monthly report with the same amount.

service charges furnished by the naval communications when they use the leased wire as when they use other wires. The charge against them over the leased wire is the same as over commercial lines.

ELLEY. Do you think they are as economical in the use of the wire they would be if you did not have these leased wires?

ANDER NOYES. Yes, sir. We have reached the point in cutting down now where several instances of loss have occurred. For example, by using a letter instead of a telegram in the acceptance of a bid, several thousand dollars has been wasted because the letter was too late to catch the market on the bid.

YARNES. That would be unwise economy, but I have no doubt we can use the service in other places where it could be dispensed with.

ANDER NOYES. We have made every effort to cut it down. There have been several examples of loss due to too great reductions.

One case was in connection with the renting of a recruiting station. If we had there we could have saved several thousand dollars in the matter of cheaper rents, but because of handling the matter by letter it was impossible to close the lease.

AL COONTRZ. I went into this matter very thoroughly as an officer to see if it could be cut down further. We finally reached the conclusion that while there might be a few more messages sent over these wires, but not very many more, there was a military advantage gained by being able to talk to Norfolk very promptly when the occasion arose, and in that way to save questions without loss of time. In view of all the circumstances we brought this down as low as we could. When you take into consideration the fact that they have come down from over \$1,000,000 to \$300,000, I think you will agree that this is a pretty good result.

LIVER. I do not think they should be required to cut to the bone losing money on account of bids where a prompt acceptance would be made.

ANDER NOYES. That is evidence of the fact that the cuts have been too drastic.

ELLEY. Will the telephone and telegraph service be increased by reason of the division of the fleet?

ANDER NOYES. Will it be increased through the division of the fleet?

ELLEY. I mean when the bulk of the fleet will be in the Atlantic.

ANDER NOYES. It must increase it.

ELLEY. Where are the leased wires?

ANDER NOYES. There is one from Norfolk to Washington, one from Washington to Boston and Portsmouth via Philadelphia, New York, New London, and Newport.

CLERICAL, INSPECTION, AND MESSENGER SERVICE.

ELLEY. For clerical labor charged on rolls you have \$700,000?

ARTIS. That was \$750,000 for this year.

ELLEY. What is that for?

ARTIS. That is for clerical service all over the world and in the yards. We have furnished the committee with a detailed statement showing how it is divided up in every way.

Commander NOYES. We are spending at the rate of has all been allotted.

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Admiral COONTZ. I went into this matter very thoroughly as a staff officer to see if it could be cut down further. We finally came to the conclusion that while there might be a few more messages sent over these wires, but not very many more, there was a great military advantage gained by being able to talk to Norfolk every day promptly when the occasion arose, and in that way to save a great many questions without loss of time. In view of all the circumstances, we brought this down as low as we could. When you take into consideration the fact that they have come down from over \$700,000 to \$300,000, I think you will agree that this is a pretty good figure.

Mr. OLIVER. I do not think they should be required to cut to the point of losing money on account of bids where a prompt acceptance should be made.

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Mr. KELLEY. What is that for?

Mr. CURTIS. That is for clerical service all over the world and in navy yards. We have furnished the committee with a detailed statement showing how it is divided up in every way.

Commander NOYES. The 58—this has been reduced to
phone and telegraph operators in the third district,
all the activities in the third naval district from New York.

Mr. KELLEY (interposing). There are only 14 people
mandant's office in New York. What are these people
the district communication superintendent?

Commander NOYES. They are telegraph and

Mr. KELLEY. For whom and for what?

Commander NOYES. For the New York yard, mostly
York yard, for the fleet-supply base—

Admiral COONTZ (interposing). Do you have
people among your 58 scattered at numerous points?

Commander NOYES. I say, these 58 include all the
third naval district, telephone and telegraph operators.

Admiral COONTZ. Tell Mr. Kelley where they are.

Commander NOYES. I can put the exact

Mr. KELLEY. They are all in the office in that building, are they not?
Commander NOYES. No, sir; this includes the whole third naval district.

Mr. BYRNES. You said they were located from New London to New York City?

Commander NOYES. Yes, sir.

Mr. BYRNES. What places are in the district besides New London that are in operation and where these clerks are located?

Commander NOYES. They are clerks and telegraph and telephone operators at New London, at New York, the medical supply depot, the district headquarters, and the navy yard. I think those are the principal points. If there are any others I can give them to you.

Mr. KELLEY. How many telegraph operators have you in the Navy Department?

Commander NOYES. Fifteen.

Mr. KELLEY. How many of these 58 are telegraph operators?

Commander NOYES. Of the 58 in the third district?

Mr. KELLEY. Yes.

Commander NOYES. I should say 10.

Mr. KELLEY. And the rest are telephone operators?

Commander NOYES. I would rather put that in the record; I am not certain as to the exact proportion. (See statement above.)

Mr. KELLEY. How many enlisted men have you under the district commandant in New York?

Commander NOYES. In the entire third district there are 70.

Mr. KELLEY. Clerks?

Commander NOYES. No, sir; I thought you said enlisted men.

Mr. KELLEY. I meant enlisted men acting as clerks.

Commander NOYES. None as far as I know.

Mr. KELLEY. What are they doing?

Commander NOYES. They are radio operators in the third naval district.

Mr. KELLEY. Have you no enlisted men acting as clerks in the third naval district?

Commander NOYES. No, sir; not as far as communications are concerned.

Admiral COONTZ. There is your complete list.

Commander NOYES. There are 21 telephone operators and 13 telegraphers in the third naval district.

Mr. KELLEY. What are the rest of them doing; are they clerks?

Commander NOYES. There are 21 telephone operators—they are put on separately—13 telegraphers and 18 clerks, making 52.

Mr. KELLEY. The chief business they have to transact is with the New York yard and Washington, is it not? Suppose you want to go up the New York yard? Do you call up these headquarters first, then they give you a call over there?

Commander NOYES. Yes, sir.

Mr. KELLEY. Is not the chief business of the Navy Department here at the New York yard?

Commander NOYES. We have a leased wire, too, which runs to the district headquarters, and from there they communicate with the yard.

Mr. KELLEY. But most of the business not? These other activities around about have very largely gone out of existence?

Commander NOYES. No, sir. The fleet;

Mr. KELLEY (interposing). The fleet supply depot?

Admiral POTTER. Yes, sir; we have many of materials there.

Mr. BYRNES. I do not see why you need stores at that place, unless you have a tremendous

Commander NOYES. That includes the quarters.

Admiral COONTZ. They have a very large transact there, because that is the center to the navy yard, to the naval hospital, to the ammunition depot, also to New London various coastal stations all the way from New Jersey. That is true, is it not?

Commander NOYES. Yes, sir.

Admiral COONTZ. They have there radio stations, and everything of that character, place.

Comparative statement of entire communication included in this appropriation

	For
	Number
Clerical.....	
Telephone.....	
Telegraph.....	
Total.....	
Net saving 1922.....	

Mr. BYRNES. You have here in the department Commander NOYES. Telegraph operators

Mr. BYRNES. Yes.

Commander NOYES. Fifteen.

Mr. BYRNES. And in this one district you

Commander NOYES. Yes, sir.

Mr. BYRNES. You have almost as many as assume the department has more business than

Admiral COONTZ. You must remember the center, and they are very busy people.

Mr. KELLEY. I have never been quite at belief that if you would put this whole thing you could eliminate quite a bit of this telegraph. I know you hold a different opinion.

Admiral COONTZ. We will do it in two miles in the navy yard, but we just have not the space. It costs us thousands of dollars worth of free rent

ny building, or such portion of it as we need, right in the center of anything, and we get it free.

Mr. KELLEY. But it costs quite a lot to keep it up, because heat, it, and everything else is required.

Admiral COONTZ. I do not think it costs a great deal.

Mr. KELLEY. If your business should drop down in the New York and you could find a place big enough for the commandant of district, it seems to me it would be a good thing to move all your vities there.

Admiral COONTZ. There is no question about it at all, if the business ps down. In the case of Boston we were able to move in the yard, the commandant has both headquarters within 300 or 400 feet.

Mr. KELLEY. It looks to me as though you were maintaining an e there simply for the purpose of conveying to the navy yard most he information that comes to it.

Admiral COONTZ. But here is the other side of it: Suppose we ed into the navy yard; you must still talk to your naval hospital, our ammunition depot, your fleet supply base, etc.

Mr. KELLEY. They are not so extensive now, because they kind of le down in peace times.

Admiral COONTZ. The hospital does not settle down very much, use we fill it with crippled soldiers, and your other stations all ain the same. We would like to move into the New York Navy d, but there is no space for us, and until that time comes and as as we can hold the ferry building free, we are lucky people. any event, all of these people would have to be moved right into yard just the same.

Mr. KELLEY. At the Philadelphia yard, the fourth naval district, e are 15 employees in the communication superintendent's office. aid for personnel in that office has 11 employees.

Admiral COONTZ. There is a sample of concentration. The com- dant of the navy yard at Philadelphia is the commandant of district, and his aid for personnel runs all the reservists within big district, and his communications, I suppose, are right close is office.

Mr. KELLEY. He has 40 people altogether?

Admiral COONTZ. Yes, sir; that includes the board of labor, the sec- ry of the third civil service district, the commandant's office er, and so on.

Mr. KELLEY. At New York you have about 150?

Admiral COONTZ. Yes, sir. That is the comparative ratio between usiness done in those two districts.

Mr. KELLEY. At Hampton Roads, where you have a large part of fleet, the operating base, the training school, the navy yard and ything, you have 17 people only, 7 in the district communication s.

Commander HILL. One answer to that is that the third naval dis- has 31 people for reservists; they have the biggest reserve nization in the country: Philadelphia only has three and Hamp- Roads has one clerk on this duty.

Admiral COONTZ. New York is very active along naval reserve lines use of the naval militia.

Mr. KELLEY. The naval district at San Francisco is consolidated a the yard, is it not?

Admiral COONTZ. No, sir.

Mr. KELLEY. The commandant has his office in San Francisco.

Admiral COONTZ. Yes; and also in free quarters.

Mr. KELLEY. Of course, I can see that there might be a need for a separate organization there on account of so many coming in to that point that do not go up to the yard.

Admiral COONTZ. He is also commandant of the train on Goat Island, and we find that by handling people through there it saves a good deal when they do not have to go to Mare Islands to attend to whatever they have to do.

Mr. OLIVER. What vessels are assigned to the command district?

Admiral COONTZ. The commandant of the twelfth district?

Mr. OLIVER. Yes.

Admiral COONTZ. He has in that district the Roads and New York, what we call a pool. There be under his jurisdiction, the tugs, the lighters, the oilers, and so on, and when a call comes he sends them. It is possible he has two or three little tugs, and a little ferry boat running from Goat Island to San Francisco. I think he has a small craft that runs to Mare Island, to Goat Island or wherever he needs it to go.

Mr. OLIVER. He does not have a large vessel devoted to his own use?

Admiral COONTZ. No, sir.

Mr. OLIVER. In other words, his duties are assumed to be performed on shore and not afloat?

Admiral COONTZ. Practically all on shore; he is the commandant of the training station and the commandant of the district.

Mr. KELLEY. Expenses of naval districts?

Commander HILL. The estimated expenditures of naval districts were \$50,000; they were \$60,000 in 1921; in 1922 there was an additional \$60,000 to cover that.

Mr. KELLEY. Are these little odds and ends, postage, and so on?

Commander HILL. Yes; they are little odds and ends. A month is allotted to the district headquarters for the costs of certain minor repairs. For instance, the ferry building in New York about \$6,000 in the way of repairs and fitting up the third story; done that we were able to take in a number of years in New York, so that we saved about \$8,000 in 1921 and \$6,000 in 1922. This item covers little things.

TRANSPORTATION OF DEPENDENTS OF OFFICERS.

Mr. KELLEY. "Transportation of dependents of officers," this running along now?

Captain STEELE. There was spent, in 1921, \$100,000 on this item. It is estimated that the current expenditures will be exhausted, and we have stopped the train at the order of the department. This estimate may be sufficient if we do not order officers

Admiral COONTZ. We are taking all we can by sea.

Mr. KELLEY. I suppose it is your policy, when you order an officer certain duty and he has a family to take with him, to take that into account and take them by sea?

Secretary DENBY. We try to do so.

CLAIMS FOR DAMAGES.

Mr. KELLEY. Claims for damages? Are these the little \$500 claims which you are allowed to settle?

Admiral LATIMER. Yes, sir; they are for damages not exceeding \$500.

Mr. KELLEY. There are 20 of them this year.

Admiral LATIMER. We have spent thus far this year about \$1,500; we have a large number of claims pending, and we do not know how many we will settle between now and the 1st of July.

Mr. KELLEY. But you think you might settle 20 next year at the same figure of \$500?

Admiral LATIMER. Yes, sir; we have put it at that amount from experience we have had in past years.

BOARD OF INSPECTION AND EXAMINING BOARDS.

Mr. KELLEY. Board of inspection and examining boards, and so on, \$1,000.

Mr. CURTIS. Originally we had an allotment of \$65,000, but we have cut the amount to \$35,000.

Mr. KELLEY. Are these traveling expenses?

Mr. CURTIS. No, sir; they are the miscellaneous items necessary for the board of inspection and the examining boards. Up to January 31 we had only spent \$7,000, and we have put in an estimate for next year of \$20,000.

Admiral COONTZ. We cut that large sum down to \$20,000 for next year.

Mr. KELLEY. That finishes pay, miscellaneous, does it not?

Admiral POTTER. Yes, sir.

CIVILIAN NAVAL CONSULTING BOARD.

Mr. KELLEY. The next item is for the civilian naval consulting board.

Admiral COONTZ. We have reduced that to \$4,000; it was \$15,000, then \$5,000, and then \$4,000.

Mr. KELLEY. Is this the Edison board?

Admiral COONTZ. Yes, sir. The Secretary did not deem it advisable to entirely cut it out, so we just simply made a straight 20 per cent cut and reduced it to that low figure.

Mr. KELLEY. Is Mr. Edison still on the board?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Last year you only spent \$1,875.

Admiral COONTZ. Yes, sir; and we may not spend any more this year, but something might come up and we would require this amount.

TUESDAY, MARCH 21

FOR EMERGENCY AND EXTRAORDINARY EXPENSES.

**STATEMENT OF REAR ADMIRAL DAVID POTTER,
BUREAU OF SUPPLIES AND ACCOUNTS.**

Mr. KELLEY. We have with us this afternoon Admiral Potter, Chief of the Bureau of Supplies and Accounts, and I will take up with him is contingent, Navy.

Admiral POTTER. For 1923 the estimate I am may be of interest to you to refer to it. In 1921 finally appropriated for contingent, Navy, \$5,000; or net expenditure was \$60,740.23, so that the balance in the fiscal year 1921 of \$14,259.71. In the present year, the fiscal year 1922, the total amount for expenditure is \$34,498, leaving available \$15,502 out of a total appropriated for 1922 of \$50,000. To 1921 I have the items for which the money is names of the items and the amounts, and for 1922 I of the items and the amounts allotted.

Mr. KELLEY. Is this fund allotted to the Department?

Admiral POTTER. No, sir; each item must be approved of the Secretary of the Navy as it comes up. A number of these things if they would be in the Department.

Mr. KELLEY. Have you a list of the allotments?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Is it a long list?

Admiral POTTER. Yes, sir; there are 74 different read some samples and put them in the hearing.

Mr. KELLEY. Make a short statement for the record they are.

Admiral POTTER. Very well, sir.

Mr. KELLEY. This is a fund that is under the direct of the Secretary?

Admiral POTTER. Yes, sir; and it is for the Naval Academy rifle team, \$1,075; flagship station entertainments, \$4,000.

Mr. KELLEY. If there are some official functions of the nations or officers must participate the creation can make an allotment?

Admiral POTTER. Yes, sir.

MEMORANDUM RELATIVE TO APPROPRIATION "CONTINGENT,

1. The appropriation "Contingent Navy" is official entertaining by commanders in chief and of the Navy abroad and in certain cases for foreigners and others in the United States. It is an expenses which arise from time to time and can be appropriations. It is expendable only after approval of the Navy. The general nature of the purpose used is indicated by the following statement for the fiscal year 1922, many of the allotments were incurred from time to time for entertaining during year:

cial entertaining-----	\$27, 048. 85
usual expenses in connection with air flights-----	735. 52
penses in connection with ceremonial funerals-----	300. 00
ertaining expenses in connection with launching of naval vessels-----	418. 00
penses of the Naval Academy rifle and football teams-----	1, 640. 00
penses of Congressional parties in connection with visits to navy ards and stations-----	154. 09
mons and addresses on religious subjects at the Naval Academy-----	3, 000. 00
cellaneous-----	1, 172. 11
Total allotments to date-----	34, 498. 57

TUESDAY, MARCH 21, 1922.

TEMPORARY GOVERNMENT FOR WEST INDIAN ISLANDS.

TESTIMONY OF ADMIRAL ROBERT E. COONTZ, CHIEF OF NAVAL
OPERATIONS.

1923 ESTIMATES.

Mr. KELLEY. For the temporary government of the West Indian islands you had \$343,440 in 1922 and you ask \$250,000 for 1923? Admiral COONTZ. The temporary government of the West Indian islands is under the Navy Department and we have to pay all the expenses. I suppose it costs us annually over half a million dollars on all lines of expense. The appropriation last year was \$343,440 and this year the Governor asked \$384,000 and made a most strenuous plea for that amount, stating that that much was necessary to get out everything in proper shape. The bill which was passed last year, authorizing the proceeds of the income tax to come into island treasury, will not give them enough. In our desire to economize, and before we had full returns from the Governor, we made a flat cut to \$250,000. I have some letters in regard to this matter, but as I came here in a hurry this afternoon I did not bring them with me, and if this can go over until to-morrow morning I would like to read those letters to the committee. I also know that Judge Towner, chairman of the Committee on Insular Affairs, is especially interested in this matter. As I say, we made a flat cut to \$250,000 just because we were cutting everybody right down the

Mr. KELLEY. You have not the Governor's letter with you? Admiral COONTZ. No, sir; I did not know I was coming up this afternoon.

Colonel ROOSEVELT. This is one of the appropriations we have been about as really not belonging to the Navy Department.

Secretary DENBY. But we govern the islands and must pay the expenses.

Mr. KELLEY. Do you recall just what you do with this money?

Admiral COONTZ. There are a number of projects, but I would prefer have you let this go until to-morrow morning, when I can show you a couple of pages from the Governor's letter. It is a very long letter, and I suspect Judge Towner would like to appear on the subject.

formed on shore and not abroad.

Admiral COONTZ. Practically all on shore; he of the training station and the commandant of

Mr. KELLEY. Expenses of naval districts?

Commander HILL. The estimated expenditures of naval districts were \$50,000; they some other subhead in 1921; in 1922 there \$60,000 to cover that.

Mr. KELLEY. Are these little odds and ends, postage, and so on?

Commander HILL. Yes; they are little odd month is allotted to the district headquarters costs of certain minor repairs. For in the ferry building in New York about \$100,000 in the way of repairs and fitting up the third or; done that we were able to take in a number of New York, so that we saved about \$8,000

Admiral COONTZ. We are taking all we can by sea.

Mr. KELLEY. I suppose it is your policy, when you order an officer certain duty and he has a family to take with him, to take that into account and take them by sea?

Secretary DENBY. We try to do so.

CLAIMS FOR DAMAGES.

Mr. KELLEY. Claims for damages? Are these the little \$500 claims which you are allowed to settle?

Admiral LATIMER. Yes, sir; they are for damages not exceeding \$500.

Mr. KELLEY. There are 20 of them this year.

Admiral LATIMER. We have spent thus far this year about \$1,500; we have a large number of claims pending, and we do not know how many we will settle between now and the 1st of July.

Mr. KELLEY. But you think you might settle 20 next year at the same figure of \$500?

Admiral LATIMER. Yes, sir; we have put it at that amount from experience we have had in past years.

BOARD OF INSPECTION AND EXAMINING BOARDS.

Mr. KELLEY. Board of inspection and examining boards, and so on, \$100,000.

Mr. CURTIS. Originally we had an allotment of \$65,000, but we have cut the amount to \$35,000.

Mr. KELLEY. Are these traveling expenses?

Mr. CURTIS. No, sir; they are the miscellaneous items necessary for board of inspection and the examining boards. Up to January 31 we had only spent \$7,000, and we have put in an estimate for next year of \$20,000.

Admiral COONTZ. We cut that large sum down to \$20,000 for next year.

Mr. KELLEY. That finishes pay, miscellaneous, does it not?

Admiral POTTER. Yes, sir.

CIVILIAN NAVAL CONSULTING BOARD.

Mr. KELLEY. The next item is for the civilian naval consulting board.

Admiral COONTZ. We have reduced that to \$4,000; it was \$15,000, then \$5,000, and then \$4,000.

Mr. KELLEY. Is this the Edison board?

Admiral COONTZ. Yes, sir. The Secretary did not deem it advisable to entirely cut it out, so we just simply made a straight 20 per cent cut and reduced it to that low figure.

Mr. KELLEY. Is Mr. Edison still on the board?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Last year you only spent \$1,875.

Admiral COONTZ. Yes, sir; and we may not spend any more this year, but something might come up and we would require this amount.

before the committee when this item was reached, consented to do so. Judge Towner, we will

Mr. TOWNER. Mr. Chairman, the principal objection appearing before the committee is to prevent, if any of these estimates or, at least, to lay before the commissions, if I can, which would prevent a reduction of the estimates. Of course, it is natural that this estimate of a for the Virgin Islands should be cut, just the same as the estimates have been cut or just the same as the other expenditures relating to the naval budget have been cut, but, as all of this is not a part of the Naval Establishment. If you cut down there is purely a civil government, and, for us, we have as officials and executives of the government the Navy Department. It would cost the Treasury or the States a very much larger sum to maintain a civil government there if it were provided for in any other way than by the Governor of the Virgin Islands was formerly cut by the Budget Bureau to \$250,000. The present estimate is \$343,440. The Budget reduction on the estimate of the Budget cut on the current expenditures is of \$93,440. Now, it is my judgment that the governor of the islands should be allowed, but, I am very sure that the present appropriation for the current cannot be reduced. In fact, it can not be reduced, I think, great and serious impairment of the service.

Mr. KELLEY. Have you a distribution of the sum by

Mr. TOWNER. Yes, sir.

Mr. KELLEY. I wish you would run over the statement and get through.

Mr. TOWNER. I have received from Admiral Kitchin a statement regarding the conditions there and I have already been accomplished, and I would like to read it for the record.

I think I told your committee, Mr. Chairman, a record the Navy had made in the Virgin Islands. I credit to the department and to the credit of the United States. In fact, it was a godsend to the territory when the supervision and discharge of the duties of the government of those islands were committed to the department. I can not express too highly my appreciation of the service that has been rendered down there by the department in an extremely difficult situation and they made a splendid record.

I want to read, if I may, this statement I have prepared. I am sorry, and if at any time during the progress of the bill I desire to ask me any questions do not hesitate to do so. I desire to ask any questions do not hesitate to do so.

The governor stated:

As you are aware, nothing was done for the Virgin Islands mission visited the islands in January, 1920, and I made to Congress, a full year elapsed without any carrying out the wise recommendations made by you.

Mr. KELLEY. This is a letter from the naval governor addressed to you?

TOWNER. Yes, sir; it is from Rear Admiral Kittelle, who is governor of the islands. I might explain that a joint commission was appointed, consisting of three Members of the Senate and Members of the House, and the commission visited the islands and hearings in the islands and covered the general situation

the governor's statement continues:

Soon as possible after my inauguration as governor I set about the work of carrying out the wishes of Congress as voiced in the adopted report of your commission, and in the six months that have elapsed the following has been accomplished:

1. Extension by Congress of the Federal income tax laws to the islands.

2. That provision extends our income tax laws to the islands, but it does not take the money to be covered into their own treasury. This year will be of material assistance to them.

3. Prohibition by Congress of aliens from holding public office.
4. Conversion of the islands to par of island currency.

5. The exchange situation when we had these hearings was very unfavorable. There was no real reason for the existence of that condition, but the financial powers in the islands and bankers of the United States arranged it so that there was a difference in the exchange rate between Denmark and the United States. That, of course, was an absurd arrangement, because the deposits were here. We went after that situation very vigorously, and with the cooperation of the Governor and the Federal authorities here, secured the abolishment of that rate of exchange, which was of benefit to the people of the islands.

6. Establishment of a department of public welfare.
7. Established and opened the first senior high school.

8. When we went there they had no high school, or they had practically none. I think there was something that they called a high school, but they had no graded system. Since then there has been established an almost perfect graded system, corresponding to our present-day system of public schools in the United States.

9. Lightened out difficulties in the judiciary and obtained passage of colonial law providing only one district judge.

10. Recommended the appointment of two district judges, but it was found upon trial that the entire business of the court could be handled by one judge, which was a manifest saving. We owe that largely to the recommendation of the Governor—that is, the abolishment of two judges and the adoption of the one judge system.

11. Improved the condition of the poorhouse.

12. Installed modern treatments for leper colony.

13. Installed sewer system, salt water fire main system, and sanitary public system.

14. I may not understand, but it is, nevertheless, a fact that there is nothing modern in the way of health protection in the islands we went in there. All of that has been created since.

15. Installed and improved roads and streets.

16. Installed plans for water supply at St. Thomas, Christiansted, and Frederiksted colonial councils.

Prepared local tax laws to replace archaic Danish, and laid colonial councils.

Prepared scheme for renaming streets and laid same before

Brought before colonial councils necessity for providing public utilities.

Made improvements on public school buildings.

Had passed automobile traffic laws.

Made extensive improvements in the three public libraries.

Encouraged Red Cross to examine all school children and all physicians thus discovered have been properly treated.

Put into effect new code of laws for St. Thomas and St. John.

That is, after all, the most considerable accomplishment have made down there in the islands. I think you will that I told you, a year ago, that we hoped to have adopted, and they have been adopted now, so that all our taxing system in the islands. A taxing system has been before the councils, but it has been opposed by the protests of the islands. The principal property owners in Danish, English, and Americans, and a great many of residents of the islands. They have secured new laws with remarkable celerity, and I think with a marked effect; but I have no doubt that something will have to be regarded to the taxing system.

Mr. OLIVER. I suppose your committee has drawn the basic principles on which a tax bill for the islands is drawn?

Mr. TOWNER. No; I can not say that. We have at the present time there is a very archaic system in all of the property of the islands escapes taxes for only a small area of cultivated lands and uncultivated lands pay taxes.

Mr. OLIVER. My understanding is that the group of islands, as they existed under foreign control, are not exempt from our system here. In other words, the islands who are best able to pay the burden escape it.

Mr. TOWNER. Yes; almost entirely. That is very true. The governor's statement continues:

Have had most cordial support from the Secretary of Agriculture in making the islands self-supporting in food production.

Started school gardens for instruction.

It was rather singular that when we took the islands several years afterwards the people of the islands were and with plenty of opportunity, did not even grow vegetables. They did not even have their own gardens, and it was with extreme difficulty to have their own gardens. Our own Department has brought about a great reform in that the influence of the school teachers and school bringing about great changes and the people are the home gardens. That is something that has brought a change in the whole outlook.

The governor's letter continues—

During the past year, as compared with a previous year, pellagra has been reduced 50 per cent, nervous intestinal diseases 80 per cent, and typhoid and mortality has been reduced 25 per cent.

ow, without going further into the general statement, I want to
up the items in the estimate which have been sent in by the
rnor. I think, Mr. Chairman, that this full statement by Ad-
l Kittelle might, perhaps, be printed in the record.
: KELLEY. It may be inserted in the record at this point.
he statement referred to is as follows:)

OCTOBER 11, 1921.

DEAR JUDGE TOWNER: 1. In the estimates for the Virgin Islands for the
year 1923, the island budget has been arbitrarily reduced by the Budget
ission in Washington from \$343,440 (amount appropriated for current
year) to \$250,000 (Budget Commission estimate for coming fiscal year)
it consulting the governor as to what would result from such a drastic
ion. The governor's estimate for the coming fiscal year was \$384,500.

be observed that the Budget Commission has made a reduction of \$134,500.
I mistake not the island's appropriation of \$343,440 was provided by the
ss as a result of first-hand knowledge of conditions as ascertained from
agressional commission of which you were senior member from the House
representatives, and which information you were able to give to the Com-
on Naval Affairs handling the appropriation.

As you are aware, nothing was done for the Virgin Islands until your
son visited the islands in January, 1920, and then, after your report
ade to Congress, a full year elapsed without any marked movement toward
ag out the wise recommendations made by you.

Soon as possible after my inauguration as governor, I set about the work
ying out the wishes of Congress as voiced in the adopted report of your
ssion, and in the six months that have elapsed, the following have been
lished:

- Extension by Congress of the Federal income-tax laws to the islands.
- Debarring by Congress of aliens from holding public office.
- Restoration to par of island currency.
- Establishment of department of public welfare.
- Provided and opened the first senior high school.
- Straightened out difficulties in the judiciary and obtained passage of
all law providing only one district judge.
- Improved the condition of the poorhouse.
- Obtained modern treatment for leper colony.
- Extended sewer system, salt-water fire main system, and sanitary public
system.
- Extended and improved roads and streets.
- Laid plans for water supply at St. Thomas, Christiansted and Freder-
before colonial councils.
- Prepared local tax laws to replace archaic Danish laws and laid same
colonial councils.
- Prepared scheme for renaming streets and laid same before colonial
councils.
- Brought before colonial council necessity for providing public bathing
places.
- Made improvements on public-school buildings.
- Had passed automobile traffic laws.
- Made extensive improvements in the three public libraries.
- Encouraged Red Cross to examine all school children and all physical
s thus discovered have been properly treated.
- Put into effect new code of laws for St. Thomas and St. John.
- Have had most cordial support from the Secretary of Agriculture toward
g the islands self-supporting in food production.
- Started school gardens for instruction.
- During the past year, as compared with a previous period of 10 years,
ra has been reduced 50 per cent. nervous diseases 65 per cent, gastro-
nal 80 per cent. and typhoid and malaria eliminated. In fact, mortality
en reduced 25 per cent.
- Code of school laws promulgated.
- Putting up the wise recommendations of your commission one by one, I
ate what has been done toward their accomplishment.
- Our Government to assist in cooperation with the people of the islands
establishing an adequate water system in St. Thomas and St. Croix."

The governor has had plans made for water systems at Christiansted, and Frederiksted and laid the same before the council. The total cost of all three adequate systems will now be \$100,000. The governor believes that he is justified in saying that the islands will do their best, but the suggested help of Congress will be very helpful and I very earnestly request your aid in obtaining such assistance.

"(2) A better system of transportation should be provided between the various islands and between Porto Rico and the islands. And it is that the Shipping Board give immediate attention to this question.

The governor has besought the aid of the executive branch of Government to obtain such service from the Shipping Board, and a Board representative, who has recently visited the islands, has himself as fully in accord with the plans proposed by the governor as something more than words will result from this effort.

"(3) Steps should be taken to provide an American system of exchange rates, resulting in decreased purchasing value of money."

The Danish money had been restored to par and this burden the people. American currency will supplant Danish currency and American banking comes into the islands.

"(4) The existing code of Danish laws should be superseded by laws based upon American principles and ideals."

The new codes are already in effect in all the islands. The present laws still in existence will be modified in due course.

"(5) Educational work in the islands should be greatly intensified."

The governor has given education his first attention. The civilization of the islands will depend largely upon how well the people are trained. He has visited the schools, both public and private, and observed the work in all grades and classes. Marked improvements in buildings and facilities have been brought about and no school ever held in the Virgin Islands has been of such high quality. Further improvements are necessary and the school budget is one cent, but, on the contrary, there will be a great increase in several years to come. Apparently no thought was given by the Budget Commission in Washington, as the will of Congress of island education was evidently not known to them. The schools are maintained and expanded. The future of the people and their thorough Americanization vitally depend upon the education of the children. Large numbers of adults lacking in education attend the schools. Shall we turn a deaf ear to such a call in order to save a few thousand dollars? The school budget is \$100,000, the whole budget, whereas the lowest home State spends \$500,000. Virgin Islands public schools will now compare very favorably with those in the States.

"(6) As far as practicable American boats should be used at St. Thomas."

The Shipping Board is sending some of its vessels here. It is to be noted that except for the transports few, if any, naval vessels are here. If this old practice were resumed, it would contribute greatly to the economy of the islands.

"(7) There should be some method adopted by which mail delivery will have mail delivery if it can be accomplished at a reasonable cost."

An improvement has been made in this particular, a mail boat is now running to St. John.

"(8) The agriculture experiment station should be extended over the islands of St. Thomas and St. John."

The Secretary of Agriculture has given the most attention to the governor in this matter. He has appointed an expert in tropical vegetation, who has arrived here, and is making every effort to restore the islands to a condition of agriculture and fruit culture. Exhibition truck gardens are to be established and the public in general and the school children in gardening.

"(9) The bar at Christiansted should be removed. It is a hindrance for boats of medium and light drafts."

be harbor was surveyed by Army engineers some time ago, but nothing further has been done. With a good modern dredge equipped to handle coral formation, the governor believes that he could open the harbor at very moderate expense. It is an important matter and should not be allowed to die from inaction.

10) The establishment of libraries with good buildings at St. Thomas and St. Croix would be of great advantage in the development of these islands. Libraries at St. Thomas, Christiansted, and Frederiksted were opened by former Governor Oman and are now in thriving condition. The Red Cross gave us a start, and the American Library Association helped wonderfully. It is most pathetic to see the eagerness with which the members of the juvenile education visit and make full use of these libraries. Monthly attendance at libraries has run from 4,000 to 5,700 readers, or about one-fifth of the total population.

11) The commission found the system of taxation on the islands unjust, inefficient, and archaic. We recommend that the entire system be reformed on a view of securing a greater income, which we believe possible, and in order to more fairly equalize the burdens of taxation."

The governor has given this matter his unremitting attention, and has caused several tax bills suitable to island conditions to be drawn up. These have been before the colonial councils and are being considered in committee. It is probable that ere many months elapse the laws may be enacted. It will then require a year of experience to determine what income therefrom will result to island treasury.

12) It is the judgment of the commission that the present local legislative system of one council for St. Thomas and St. John and one for St. Croix be maintained."

This has been done, but as yet the assembly of a grand council for both islands has not been found practicable.

13) It is the judgment of the commission that in the revision of the judicial system one court and judge having general jurisdiction should be provided for the islands of St. Thomas and St. John, and one for the island of St. Croix; that writs of error and appeals should be to an appellate court consisting of two judges from said islands and the judge of the district court of the United States for Porto Rico, sitting in banc."

No judges were tried, but it was found that one can do the work for all islands; and so the local laws have been amended, and there is now only one district judge under the island government. The governor earnestly recommends that the Congress legislate, in accordance with the above recommendation of its commission, to remove the appellate authority from the United States appellate court at Philadelphia and vest it in an appellate court nearer and consisting of the district judge of the Virgin Islands, the district judge of Porto Rico, and one associate justice of the Supreme Court of Porto Rico. The appellate court of Philadelphia has been shown to be much too far removed to act with full knowledge, and considerable unnecessary embarrassment resulted to the island government.

The above information will place you in touch with conditions as they exist; and I believe it will be apparent to you that until the new tax laws are passed and have been in operation for a year, together with the income law, it will be impossible to reduce the appropriation which Congress has heretofore wisely considered necessary and which is necessary to maintain the islands. We have put our American shoulder to the wheel, and we can not lag in either education, sanitation, or in our efforts to provide water mains and make living conditions normal. The honor and prestige of the United States are at stake and should not be sacrificed for \$90,000 saving in budget campaign. These islands had no part in piling up the great war expenditures, but have been economically administered from the first.

I will write to you again, when the appropriation bill comes up next year, and ask you to maintain the appropriation at its present figure. I am anxiously anxious, and I believe it is the wish of Congress, to make these islands self-supporting; but if the props are cut out from under me in the event of my efforts, local failure is sure to follow.

I have written also to Senator Kenyon.

Very sincerely yours,

SUMNER E. W. KITTELLE,
Governor.

DR. HORACE M. TOWNER, M. C.,
House of Representatives, Washington, D. C.

ST. THOMAS, August 2.

From: The Governor of the Virgin Islands.

To: The Chief of Naval Operations.

Subject: Estimate of appropriation for the "Temporary West Indian Islands," fiscal year ending June 30, 1923.

References: (a) Budget Officer's letter, July 23, 1921, No.

Opnav. letter 29370-11:1, dated July 27, 1921; (c) governor's of August 16, 1921; (d) department's radio 1223-1610, 1921; (e) governor's radio 1025-0900, August; (f) department's radio 14

I. The itemized estimates of the amounts necessary to operate the government of the Virgin Islands of the United States from July 1, 1922, to June 30, 1923, are embodied herein.

Amounts estimated to be absolutely necessary to cover the deficit of the government for the fiscal year 1923, \$384,650.

Expenditures.

Colonial councils.....	\$8,1
Judiciary departments.....	\$2,1
Police and prison departments.....	1
Harbor departments.....	
Fire departments.....	10
Health departments.....	999
Poor departments.....	
Department of education.....	111
Public works departments.....	87,
United States expenses.....	44,
Subsidies.....	5
Miscellaneous.....	4,
Pensions and allowances.....	3,
Contingent.....	15,

Revenues.

Direct taxes.....	1
Indirect taxes.....	1
Sundry revenues.....	
Harbor department.....	

Leaving a net deficit of.....

2. The foregoing is the amount to which the government of the islands, has reduced the local budgets, but I have not included the additional sums required for the department for the additional sums required.

II. Estimated additional amounts required to be necessary to the healthful living conditions of the people of the islands, \$300,000.

III. Desirable improvements, such as American improvements, road construction, assisting agricultural production, etc., have not been considered, as it is impossible to estimate the cost of these improvements, which must be most regretfully and indefinitely postponed.

3. In explanation of II the following is a summary:

Water, or, rather, the lack of water, has been the most serious factor within my knowledge in the islands more than any one factor within my knowledge. Document No. 731, dated April 19, 1920, report on the subject under authority of the concurrent resolution of the United States January, 1920, states on page 26:

"One of the paramount questions involved in the development of these islands is an adequate water supply. The people are dependent upon cisterns, iron pipes, and other means of obtaining water. The greatest misfortune of these islands has been so bad that one year it was necessary to install an adequate system of sanitation be carried out under the effort has been made looking to the construction of a water supply at St. Thomas, and plans are being worked out:

d that a proper water system for St. Thomas will cost about \$250,000; nearly as much for St. Croix. This is a vastly more important question these people than the question of civil government. Some way must be for our Government to cooperate with the people of these islands in this, the most important question involved in their situation." Public works officer estimates that in 1922-23 this Government could concrete watersheds and reservoir in the island of St. Thomas on land by the local government for \$75,000, and in the island of St. Croix, at \$86,000, and at Christiansted for \$89,000. The sum of \$240,000 for an immeasurable and lasting blessing on these islands, will place a par with other communities, and will insure their development by capital in the hotel and commercial fields. Common humanity and honor alike demand that we shall fulfill this obligation. Education can only expand if funds are provided. It is imperative that high-school courses be open to the steadily broadening stream of children of the grammar and junior high schools of the islands. Two thousand three hundred and eighty-one children enrolled last year in the public schools, daily average attendance was 93.90 per cent in St. Thomas and St. Croix 82.70 per cent in St. Croix. The new school law raised the age limit compulsory education from 13 to 15 years. Vocational training and domestic science courses, employment of trained American teachers, will require large amounts. The \$150,000 asked for intensifying the system of education to be spent on land, buildings, salaries for American teachers, and greatly needed equipment. Over 500 people over school age and deficient in common-school education have appealed for night-school instruction. Can the United States consistently deny such an appeal? \$384,630 in 1916 is the irreducible minimum beyond which this government cannot function in other than a halting, retrograding fashion. It does not provide any new construction or progressive development of any kind, such as is pledged to provide, but is bare governmental deficit.

ST. THOMAS, December 30, 1921.

DEAR JUDGE TOWNER: In accordance with my promise I am writing to you on the subject of the budget for the Virgin Islands, as the holidays are over and the budget is before Congress. I am inclosing a copy of my letter dated October 11 last, as the data in that letter will enable you to better understand conditions as they are.

As you will remember, from your visit here in 1920, that one of the principal reasons why Congress made the appropriation for these islands in the first place was that when we took the islands two definite sources of income stopped. These two were the lottery, which paid yearly into the local treasury \$100,000, and loss of custom duties on imports from the United States which were paid into the local treasury. Goods from the United States became free at once. This loss deprived the local treasury of about \$200,000. To make up for this in 1916, the year before we took over the islands, the amounts collected were \$191,341.65. Thus the American occupation deprived the islands of their own income of approximately, in round numbers, \$300,000.

Unfortunately that the budget for the Virgin Islands can not be considered on its own merits. It is carried on the naval budget and as such it is seemingly bound to bear its share of retrenchment in naval expenditures, whereas the Virgin Islands are not naval in any sense, but purely and entirely civil. The government of the Virgin Islands is not a naval government, but a civil government, with executive, legislative, and judicial departments. The island government is very frugal and for every dollar spent has secured a full dollar's value. Our public-school system, which I wish Congress would compare with the States: it is better than in many States, and it costs only 20 per cent of the budget, as against 36 per cent for the State that spends least, and in some States the amount runs up to 50 per cent.

Law based upon American principles and framed to be very gentle in its effects, as compared with tax burdens in the States, is before the colonial council now. It is having a hard time. In the colonial council for St. Thomas, which is fully controlled by the Danish financial interests, which are quietly anti-American, the bill is being amended in such a way as to make it valueless, not only as to American principles, but also as to revenue.

The plain people are with the government, but with no voice, as the interests control the council. And highly of the real American spirit which is becoming a people; it would be a great gratification to the people to see it.

I most earnestly urge that the island budget be not reduced, will but continue it for a few years more I firmly believe that become self-supporting. You will remember that it is not your commission of Congress visited the islands, and to will support so soon would operate to undo much that has been canalization.

I have written also to Senator Kenyon.

Very sincerely, yours,

SUMNER E. W. I

Hon. HORACE M. TOWNER, M. C.,
House of Representatives, Washington, D. C.

EXPENDITURES OF GOVERNMENT.

Mr. TOWNER. The amount of expenditure of the islands, is \$668,700; the amount of revenue of the islands was \$304,050, leaving a net deficit of \$364,650 are as follows:

Colonial councils	_____
Judiciary departments	_____
That, you will understand, includes all of the judiciary local and municipal courts.	
Police and prison department	_____
Harbor departments	_____
Fire departments	_____
Health departments	_____
Poor departments	_____
Department of education	_____
Public works department	_____
United States expenses	_____
Subsidies	_____
Miscellaneous	_____
Pensions and allowances	_____
Contingents	_____
Total	_____

Now, the items of revenue are—

Direct taxes	_____
Indirect taxes	_____
Sundry revenues	_____
Harbor department	_____
Total	_____

That leaves a net deficit of \$384,650.

It will be noted that the principal items almost five-sixths of the entire expenditure, least, to be paid by the Government, are in departments, \$22,551.23, and department of Now, gentlemen, those items can not be reduced. I question about that. If the committee feels any reduction at all from the estimates, I not go below the current appropriation. I think it would bring such

such impairment of the work down there that it would be very alarming.

r. OLIVER. What does the total amount to?

r. TOWNER. The total of the appropriations for this year?

r. KELLEY. No; the deficit.

r. TOWNER. The total expenditures as now estimated amount to \$700; the total revenues of the islands are estimated at \$304,050, making a deficit of \$384,650. That is the estimate as made by Admiral Kittelle. The expenditures for the current fiscal year amount to \$42,440, and I very earnestly recommend that that amount be not exceeded.

r. OLIVER. Does your committee contemplate recommending to Congress at any time in the near future a tax bill for the islands?

r. TOWNER. I will say that practically everything that we have recommended in our report has been carried out very successfully. This is the only thing that has not been done.

r. OLIVER. Is not that a very important matter?

r. TOWNER. It is the most important of all.

r. OLIVER. What are the reasons for delaying it longer?

r. TOWNER. There are no reasons. We have now given them an opportunity to do it themselves, and that is the way it should be done.

r. OLIVER. If the matter is left to them, it is not likely that it will be done along lines that we can approve.

r. TOWNER. I think that is true.

r. OLIVER. It seems to me that in drafting a bill of that kind we should follow what our observation and experience here at home leads us to believe is a just and equitable taxing system.

r. TOWNER. I entirely agree with you. My idea now is to have an expert sent from the United States, probably from the Treasury Department, so that the exact conditions in that regard can be reported to us. Upon that information, we will prepare a bill.

r. KELLEY. We are very much obliged to you.

THURSDAY, MARCH 23, 1922.

EXPERIMENTAL RESEARCH LABORATORY.

REPORT OF CAPT. E. L. BENNETT, TECHNICAL AID TO THE SECRETARY OF THE NAVY.

r. KELLEY. There is an item on page 13 for the Experimental Research Laboratory. Please tell us about this laboratory.

Captain BENNETT. This laboratory was authorized by law several years ago to be built on the grounds of the Bellevue Magazine, for experimental and research purposes for the entire Navy. The buildings are completed and the equipping of them is under way. We now hope to have the place ready to start operations about the middle of July, but we have no money yet with which to operate it. The original estimate for operation for the first year was \$300,000, and this has been reduced by the Budget officer to \$100,000.

r. KELLEY. You mean by operation the expense of the employees, the cost of the buildings, and the upkeep of the plant?

Captain BENNETT. And fuel and material.

Mr. KELLEY. But not equipment? The building is equipped with the necessary laboratory facilities?

Captain BENNETT. It will be out of the existing appropriation.

Mr. KELLEY. This is for operating the laboratory?

Captain BENNETT. For operating expenses for the command.

Mr. KELLEY. Give us the details of it.

Captain BENNETT. The original estimate was \$300,000. I had nothing to go upon in the way of precedents with which to compare much it would cost to run an establishment of this kind. My predecessor, who has been connected with this project since its inception, traveled around the country and visited the research laboratories of the large commercial concerns, such as the General Electric Co., the Edison Co., and he found that they were spending anywhere from \$500,000 to \$1,000,000 a year on such work. He decided that we could run our own laboratory the first year on \$300,000, and that sum was divided as follows: Salaries, \$49,490; wages, \$93,036; fuel, \$10,000; rent and maintenance, \$25,000; temporary test houses, \$10,000; electricity, \$15,000; stationery, office supplies, etc., \$500; telephone service, \$600; material for experiments, \$10,000; additional equipment, \$20,000. As I say, that makes a total of \$300,000. Budget officer to \$100,000, and we have \$200,000 left of the \$300,000 among the various items to be included in the first estimate. We did not know how to do it, but we have decided to do nothing to go on.

Mr. KELLEY. Is not Admiral McVay going to conduct experiments down there?

Captain BENNETT. We expect to be patronized by him.

Mr. KELLEY. He has a fund of \$250,000, or thereabouts, for experiments and researches. Why could we not use such work as you may do for him?

Captain BENNETT. We will have to be helped by the various bureaus for which experiments are made, because \$100,000 will not much more than pay for the use of the facilities.

Mr. KELLEY. Admiral Taylor has a fund for experiments.

Captain BENNETT. Yes, sir; but I quote from the report of the very much for the Bureau of Construction and the Bureau of Engineering.

Mr. KELLEY. And for the Bureau of Engineering?

Captain BENNETT. We should do a great deal of work.

Mr. KELLEY. You have a large fund for experiments, do you not, Admiral?

Admiral ROBISON. That is unlimited.

Mr. KELLEY. You can use your own discretion.

Admiral ROBISON. Yes, sir. We will use it for the purpose this year.

Mr. KELLEY. Where will you conduct your experiments?

Admiral ROBISON. The sort of work that is done at the laboratory is now being undertaken by the Bureau of Standards Yard and by the Bureau of Standards. The Bureau of Standards work should not be done at the laboratory point, where it is available for all of the work.

r. KELLEY. Do you know how much experimental work you will do, such as might be done under Captain Bennett at this story?

miral ROBISON. I would start off by giving him \$25,000.

r. KELLEY. What other bureaus would you be likely to do work Captain?

ptain BENNETT. Possibly for aeronautics.

r. KELLEY. So that, if this \$100,000 were given you, and you patronized with some little generosity by the other technical us, you could get along all right?

ptain BENNETT. We will make a start, and I hope that by the of next year we will be able to prove the value of the laboratory, our original estimate will go in next time.

r. KELLEY. How large a plant is this?

ptain BENNETT. I have a picture of it here. That building [in- ing] on the right is a machine shop, 300 by 80 feet; and the building is a foundry, which is about 100 by 60 feet; the next ling is a pattern shop of the same size; and the chimney indi- where the powerhouse stands; in the background is the labor- building, 200 by 60 feet—three stories in height.

r. KELLEY. How much did that plant cost?

ptain BENNETT. The appropriation was \$1,500,000, and it will ly be expended by the time the place is equipped.

r. KELLEY. How far down the river is this?

ptain BENNETT. It is about 7 miles from the navy yard, as I l it.

r. OLIVER. Did you move any of the plant from Annapolis here?

ptain BENNETT. No, sir; nothing has gone from there and I do ow that anything will go from there. The plant at Annapolis ore of a testing plant for completed material; this one is in- ed more for research purposes, and particularly as a develop- laboratory.

r. KELLEY. Who located it?

ptain BENNETT. That was done before my time.

miral COONTZ. Mr. Daniels.

r. KELLEY. Seven miles down the river?

ptain BENNETT. It is 2 miles below St. Elizabeths.

r. KELLEY. How do you get down there?

ptain BENNETT. The trolley cars go within $1\frac{1}{2}$ miles of the place.

r. KELLEY. Is there anything else there besides the laboratory?

ptain BENNETT. The Bellevue magazine occupies about half of Government property.

r. KELLEY. What was the reason for the location of it at that t?

ptain BENNETT. It was desired to have it in the District so that ould be readily accessible to the Navy Department; and, I sup-, that was the most suitable available Government land.

r. KELLEY. They put it as far as they could to keep it inside ie District line?

ptain BENNETT. I was not here at that time. The Navy wanted Washington. The original proposition of certain ones of the d consulting board was to locate it in New York.

r. KELLEY. Is it accessible to the bureaus that will use it?

Admiral COONTZ. Yes, sir; the bureau chief can go down and take a look at what is going on there.

Mr. KELLEY. Should it not have been built closer to the city?

Admiral COONTZ. They had the land free.

Captain BENNETT. It was Government land. In addition, there is a dock there, and we can bring good-sized ships alongside. We have 24 feet of water alongside the dock. If we have developed something and wish to try it on board ship, we can bring the ship alongside, put the thing on board, and try it out.

Mr. KELLEY. The officers are in Washington?

Captain BENNETT. Yes, sir; there are no quarters down there.

Mr. KELLEY. Is any part of this estimate for the purpose of erecting quarters?

Captain BENNETT. No, sir.

SALARIES.

Mr. KELLEY. Let us see how your salaries run: You have a chief draftsman at \$4,800. Is that about what Admiral Taylor and Admiral McVay pay their chief draftsmen?

Captain BENNETT. Admiral McVay can answer that better than I can. This list was prepared by Admiral Smith, who spent many years on this project, and I have not presumed to go behind his judgment.

Mr. KELLEY. Is that about what you pay chief draftsmen, Admiral?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You have other draftsmen at from \$3,750 down to \$1,400. You are hoping to get enough income from the other bureaus to maintain about this schedule?

Captain BENNETT. No, sir; this is what would be classed as one head. We expect to have to pay out of the \$100,000 the permanent force, which would consist largely of technical and clerical personnel and a few of the head mechanics, who will be especially selected because of their ability to conduct research work. It requires a man of peculiar disposition and temperament to be successful in experimental and research work. Production does not enter into this at all. Having established this nucleus force, assume that the Bureau of Ordnance wants some experiments conducted: As we will not have sufficient money to pay for it, we would rather expect them to chip in and help. We would get the mechanics and laborers, probably from the Washington yard, and we would pay for their transfer of funds. The Bureau of Ordnance would then reimburse us. That is our general scheme, but we do not know exactly how the details will work out.

Mr. KELLEY. This is under the Secretary's control?

Captain BENNETT. It is under the Assistant Secretary.

Mr. KELLEY. But it is under the Secretary's office?

Captain BENNETT. Yes, sir.

Mr. KELLEY. That is where it belongs, really, as a matter of fact, and right?

Captain BENNETT. Yes, sir; if it were under any one bureau, the bureau would own it.

Mr. KELLEY. It is for all of the bureaus?

Captain BENNETT. Yes, sir.

THURSDAY, MARCH 23, 1922.

OFFICE OF THE SOLICITOR.

STATEMENT OF REAR ADMIRAL JULIAN L. LATIMER, JUDGE
ADVOCATE GENERAL OF THE NAVY.

SALARIES.

Mr. KELLEY. Office of the solicitor, Navy Department.

Admiral LATIMER. The office of the solicitor is a part of my fee and therefore I appear in behalf of that item.

Mr. KELLEY. For 1922 you had for your statutory roll \$22,990.

Admiral LATIMER. Yes sir.

Mr. KELLEY. How much do you want for next year?

Admiral LATIMER. For 1923 I want the amount of the estimate, \$22,990.

Mr. KELLEY. You want the same number of clerks and the same amount for salaries?

Admiral LATIMER. Yes, sir; the same list of clerks and the same amount. However, the lump-sum appropriation has been reduced.

Mr. KELLEY. I am referring to the statutory roll.

Admiral LATIMER. That is the same.

TEMPORARY EMPLOYEES.

Mr. KELLEY. Then you had for 1922 a lump-sum appropriation of \$22,000 and you are asking \$19,920 for 1923?

Admiral LATIMER. Yes, sir. We had \$22,520 last year and we reduced it to \$19,920, a reduction of \$2,600.

Mr. KELLEY. You ask an increase of \$150 for one clerk.

Admiral LATIMER. That is an increase from \$2,250 to \$2,400. He is an attorney who, by error, was reduced last year from \$2,400 to \$2,250; he has been getting \$2,400 up until last year, and we increased his salary by \$150 in order to put him back where he had been. He has served a year longer and gotten \$150 less.

Mr. KELLEY. This is the one we took care of in the naval bill last year.

Admiral LATIMER. Mr. Dyson is his name.

Mr. KELLEY. So you want that put back to \$2,400?

Admiral LATIMER. Yes, sir; where he was before.

Mr. KELLEY. That is to correct a mistake?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. He has been getting \$2,400 this year?

Admiral LATIMER. No, sir; he has only been getting \$2,250.

Mr. KELLEY. I remember something about it, and I thought we intended to fix that.

Admiral LATIMER. I understand you did.

Mr. BYRNES. Do these attorneys get the bonus?

Admiral LATIMER. Yes, sir.

Mr. BYRNES. I do not particularly mean the one we are discussing.

Admiral LATIMER. All of the attorneys get the bonus.

Mr. KELLEY. How old are these men?

Admiral LATIMER. Mr. Dyson, the one you are putting up, I should say was a man between 45 and 50. He is a very excellent, and valuable man.

Mr. KELLEY. Is he a naval officer?

Admiral LATIMER. No, sir; he is a civilian attorney. All are civilian attorneys.

Mr. KELLEY. Is that all you have, Admiral?

Admiral LATIMER. That is all under the office of the Judge Advocate General. However, I will say that we have now gotten our office budget for next year.

LAWYERS.

Mr. KELLEY. How many lawyers have you in the office?

Admiral LATIMER. Of the civilian attorneys we have 12.

Mr. KELLEY. And none of them get above \$3,000?

Admiral LATIMER. No, sir. Then, of law clerks, who are graduates in law, we have nine. Then we have a number of who are also graduates in law.

Mr. KELLEY. All of these lawyers you speak of are civilian?

Admiral LATIMER. All of these I am speaking of are civilian.

Mr. KELLEY. How many officer lawyers have you?

Admiral LATIMER. Of officer lawyers we have 4, taking a law course. Four of them graduated this year from George Washington University.

Mr. KELLEY. You have 12 lawyers and 4 students?

Admiral LATIMER. Five lawyers and nine students.

Mr. KELLEY. Are the nine civilians or are they officers?

Admiral LATIMER. They are officers.

Mr. KELLEY. We carry their pay—

Admiral LATIMER (interposing). In pay of the Navy.

Mr. KELLEY. Do they get any extra pay for their work?

Admiral LATIMER. No, sir. They go to work until 5 or 6 o'clock in the afternoon, and then they are studying.

Mr. KELLEY. How long do you keep them in the office?

Admiral LATIMER. Three years and then they stay long enough to take their final examination for the bar examination in the District.

Mr. KELLEY. Why do you need lawyers?

Admiral LATIMER. They are sea lawyers.

Mr. KELLEY. I have known of lots of us.

Admiral LATIMER. A number of those are in admiralty law and admiralty law; they are a very important part of the law in great demand at sea because of their legal training.

Mr. KELLEY. Do they act as judges of the cases?

Admiral LATIMER. Yes; as judge advocates, as judge advocates in big inquiries, in cases where a knowledge of admiralty law is valuable.

Mr. KELLEY. How many lawyers will you have next year?

Admiral LATIMER. I should say, 12, in the Marine Corps.

Mr. KELLEY. And they have the various grades and ratings of the vice?

Admiral LATIMER. From captain down.

Mr. KELLEY. Have you any lawyer admirals?

Admiral LATIMER. I am not sure. We had one but he is retired.

OFFICE OF JUDGE ADVOCATE GENERAL.

SALARIES.

Mr. KELLEY. For the office of the Judge Advocate General you in your regular appropriation \$28,810.

Admiral LATIMER. \$38,060 in 1922.

Mr. KELLEY. For your statutory roll?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. Let us keep to the statutory roll and take up the lump-roll later.

Admiral LATIMER. I had it in a lump sum last year.

Mr. KELLEY. Are you sure about that, Admiral?

Admiral LATIMER. That is what it states here, sir.

Mr. KELLEY. At the bottom of the first column it says "statutory, \$810." That is the right amount, is it?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. And you are asking this year for \$29,810?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. How do you account for the increase of \$1,000?

Admiral LATIMER. We are taking over two clerks that we had from Secretary's office, one at \$1,400 and one at \$1,200. We had two clerks in our office from the Secretary's office, with total salaries of \$2,600, so that there is really a reduction and not an increase.

Mr. KELLEY. Then you take in two, one at \$1,400 and one at \$1,200, and lose one at \$1,600, so that makes the \$29,810.

Admiral LATIMER. Yes, sir.

Mr. KELLEY. This is not an increase?

Admiral LATIMER. It is a decrease, sir.

Mr. KELLEY. And no new positions?

Admiral LATIMER. That is right.

Mr. KELLEY. It is a transfer?

Admiral LATIMER. Yes, sir. Then one \$1,600 clerk is promoted to \$2,000.

Mr. KELLEY. Do you promote the \$1,600 clerk?

Admiral LATIMER. He is a law clerk and we can not get along without him.

Mr. KELLEY. He takes the other position?

Admiral LATIMER. Yes; he takes the \$2,000 position.

Mr. KELLEY. And you vacate that place?

Admiral LATIMER. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. Last year you had \$6,000 in the lump sum and you are asking the same amount for 1923.

Admiral LATIMER. Yes, sir.

Mr. KELLEY. Two attorneys at \$3,000 each.

Admiral LATIMER. Yes, sir.

Mr. KELLEY. And you have them now?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. Is that all you have?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. We are very much obliged to you.

THURSDAY, MARCH

OFFICE OF NAVAL RECORDS AND LIBRARY.

STATEMENT OF CAPT. D. W. KNOX.

SALARIES.

Mr. KELLEY. What is your position, Captain?

Captain KNOX. I am in charge of the Office of Library.

Mr. KELLEY. You had this year \$21,000, and you are much for next year?

Captain KNOX. I am asking for \$20,000.

Mr. KELLEY. And that comes about by dropping one clerk?

Captain KNOX. At \$1,000; yes, sir.

Mr. KELLEY. Is he dropped out or sent somewhere else?

Captain KNOX. We will have to drop him out.

Mr. KELLEY. Is that all there is to it?

Captain KNOX. I have another item on the next page.

NAVAL WAR RECORDS.

Mr. KELLEY. That item relates to naval war :
sumie they have reference to the World War?

Captain KNOX. Yes, sir.

Mr. KELLEY. This year you had \$20,000 and you :
\$19,000 for next year?

Captain KNOX. Yes, sir.

Mr. BYRNES. How long is it going to take you to c
records?

Captain KNOX. Well, it is very difficult to esti OI
there is a great mass of papers to be sortu , but a un
15 years, at the present rate. The Secr y of t
proved a recommendation to try and inc
when the state of the Treasury will war it it,
supervisory force to better advantage, th
ducing the number of years it will take.

Mr. KELLEY. What did you start out to do when ;
on this job?

Captain KNOX. Congress appropriated m r t
and classification, filing, and indexing of t
view to publication. The method follow
War records was to print everything,
number of records to be printed, and I rec

approve a general policy which contemplated the printing of selected documents, the most important, and that the remainder of work should be covered by the writing of a general history. That way it will reduce very greatly the number of volumes to be printed. I have here a paper which goes into a little detail on

. KELLEY. You say it will take 15 years?

Captain KNOX. That is an approximate estimate; it may take 10 or might take 20, because the section was not started until after the war was finished.

. KELLEY. How do you get these records?

Captain KNOX. The records from London have been received and records of most of the activities which have ceased have been sent in; there is a general order to send in all records. It remains to go through the files of the department and the going concerns and have still retained their records.

. KELLEY. This is for the purpose of preserving the historical record of the war?

Captain KNOX. The records of the war itself; all the activities of the Navy Department during the war.

. BYRNES. Of our Navy, or are you covering all the activities of all navies?

Captain KNOX. Primarily for our Navy and incidentally others in so far as they are directly concerned with our Navy.

. BYRNES. And that would take you 15 years with this force?

Captain KNOX. It has been estimated that there are about a million documents to go through. Of course, we do not file all of them; the sort eliminates perhaps 80 per cent of them.

. KELLEY. For instance, you take Admiral Sims. I suppose he has great quantities of material over there?

Captain KNOX. Yes, sir.

. KELLEY. He sends that here and you sort that over; is that

Captain KNOX. That is the scheme and that has been done, that is the regular part.

. KELLEY. That has been finished?

Captain KNOX. Yes, sir.

. KELLEY. Where else do you go to get your records?

Captain KNOX. In the Navy Department, the various navy yards, the various naval districts. In addition to Admiral Sims's own records there are the records of each office in Europe, the records of the ship that participated in the war, and so on.

. KELLEY. Just in what form do you preserve the records?

Captain KNOX. The Civil War method was to print practically every document, but that would be very expensive and take a very long time, and after that was finished you would not have anything left that was worth the expenditure. So the present proposal is to print those of special value and interest and to cover the remainder of the work by a general history.

. BYRNES. And you are determining what is of special value?

Captain KNOX. Yes, sir; that has to be done in the historical section.

. BYRNES. Who does it? Do you perform that duty? Do you determine the value of the documents?

Captain KNOX. I am the head of the assistants, but we have not yet got what to print. We are simply ing archives. I have of

Mr. BYRNES. This was done at the end of the Civil

Captain KNOX. We have not finished the Civil War re

Mr. BYRNES. Are you working on them?

Captain KNOX. Yes, sir; in the library. We have not Spanish War, the Mexican War, the War of 1812, or tionary War, either.

Mr. KELLEY. How valuable is this?

Captain KNOX. As valuable as any history is.

Mr. KELLEY. There will be so much of it that nobody it after you get it finished?

Captain KNOX. That was true of the Civil War.

Colonel ROOSEVELT. I think you will takes up naval history will refer to t them as a book, but if we have historia formation. As a book of reference it anybody writing history.

Mr. KELLEY. It will contain the reports of admi gements, and that sort of thing?

Captain KNOX. Yes, sir.

Mr. KELLEY. How much of a history will you write?

Captain KNOX. I can have no idea until the archives completion; perhaps eight or ten volumes, roughly.

Mr. KELLEY. You approve of this, Colonel?

Colonel ROOSEVELT. Yes, sir; we certainly ought

Mr. KELLEY. Why would it not be a better plan to pal actors of the war to collaborate and write a h

Captain KNOX. That is one argument for fu quickly.

Mr. KELLEY. Do you not agree that this should be c than 15 years?

Admiral COONTZ. Yes, sir; if we had the volumes of the records of the War of tor Cockrell for me probably 25 years That is still coming out. You could comp. you had the force?

Captain KNOX. Yes, sir; more than dou

Colonel ROOSEVELT. It is not only the l of statistics which can be used for refere

Mr. KELLEY. Why do you want to hire

Captain KNOX. To secure somebody w what is important and what is not—rather

Mr. KELLEY. If they detailed a good r could do it very well.

Captain KNOX. I have three reserve officers. about their continuing after the 1st of July.

Mr. KELLEY. I dare say that among the find somebody specially fitted and adapted would like to do it.

Admiral COONTZ. It would very greatly increase the cost.

Mr. KELLEY. A retired officer would do it for nothing.

Admiral COONTZ. You order him to active duty and give him his allowances, and you would find that \$2,000 would not last long.

Mr. KELLEY. He would do it better.

Admiral COONTZ. The \$2,000 man would be much more permanent. On the other hand, Congress by special legislation put three of them here to last until the 30th of June, 1922. They may retain some of them.

Captain KNOX. Permanency of personnel in this kind of work is very important. That is the reason for asking for one high salary.

Mr. KELLEY. I would not think that you would get a very reliable and well-prepared man for \$2,000. The employee who is now getting \$800 is to be promoted to \$2,000. That is the only change you have in the pay roll?

Captain KNOX. Yes, sir.

Mr. LUNENBURG. There is one less at \$1,000.

Mr. KELLEY. That leaves how much for this work?

Captain KNOX. Nineteen thousand dollars, instead of \$20,000, appropriated last year.

Mr. KELLEY. This will carry the work along about as it is going now?

Captain KNOX. Just about the same.

Mr. KELLEY. How many employees have you altogether doing this work?

Captain KNOX. Fifteen clerks are employed at the present time, besides three reserve officers and myself.

COMPLETION OF NAVAL RECORDS OF THE WAR OF REBELLION.

Mr. KELLEY. The next item is "Toward completion of the publication of 11,000 copies of the official records of the Union and Confederate Navies in the War of the Rebellion, \$4,500." Have you noted that?

Captain KNOX. That represents the printer's estimate for work now in his hands. It is a reappropriation of money formerly turned back into the Treasury from an old appropriation. They thought that they did not need it, but the cost of printing has gone up.

Mr. KELLEY. The work is in his hands?

Captain KNOX. In the printer's hands.

Mr. KELLEY. How large a work is this?

Captain KNOX. It is the last volume proper of the records of the Rebellion. I suppose it is about 400 pages.

Mr. KELLEY. How many volumes of this work?

Captain KNOX. This is the thirtieth volume. There remains only a general index to be completed.

Mr. KELLEY. Will it be paid for out of the \$4,500?

Captain KNOX. No; the general index is not to be paid for out of this appropriation.

Mr. KELLEY. That will come later?

Captain KNOX. That will be next year.

Mr. KELLEY. This is the last volume of the history?

Captain KNOX. The last volume of these records.

I have a short paper here approved by the Secretary of the Navy, which perhaps you would like to incorporate in the record.

Mr. KELLEY. Yes, sir.

(The statement submitted by Captain Knox : 1 :)

I 1

From: Officer in charge historical section.

To: Secretary of the Navy.

Via: Director of Naval Intelligence and Chief of Naval Operations.

1. In order to facilitate the work of this office it is desired to decide upon general policies respecting its future. It is more orderly and economical way than is possible under

2. The small number of the personnel in the historical section has limited its work principally to the preparation of necessary replies to queries received from members of Congress and civilians in the country. The gradual reduction in the volume of these documents recently the organization of the section primarily for the purpose of up the historical archives. A great quantity of documents are distributed in many parts of the naval establishment. These require examination and many eliminations before final incorporation in This work of selection, arrangement, and filing is a task of very magnitude and will require a number of years to complete. The personnel of the section. The sooner it is finished the more efficient will be the result, since the work is facilitated by a number of persons familiar with the incidents of war and the files of the Navy still remain in the service.

3. The principal economy that would result from an early work of filing and indexing is the saving in overhead charges. A force supervising this work could supervise efficiently a several times greater. Of the present overhead charges could be eliminated upon the completion of the archives. The subordinate clerks employed in archive building aggregate \$1,000,000. This force can complete the work in about 20 years. A subordinate force, without increasing the supervisory force, could complete in half the time; about 10 years. A saving of \$1,000,000 for 10 years amounts to \$100,000. Similarly if the personnel could be quadrupled the time would be reduced to 5 years and the saving to \$150,000. These savings would be even greater if the supervisory force, some of whom are reserve officers, could be promoted in sequence of promotion. The doubling of the personnel to create 12 additional clerks and require an increase in the salary for the office from \$19,000 to about \$35,000, and would be completed in about 10 years. Quadrupling this suboffice would require a total office appropriation of about \$70,000 and result in about 5 years.

4. The intention of Congress, as expressed in the act, is that the historical selections shall be printed ultimately. The records of the War of the Rebellion, which involved substantially the entire collection, be followed in the present a poor return in proportion to its necessarily great cost. It forbids intelligent interpretation, analysis, and much of the greater part can not prove of even a person. Of course, there are many documents which are historically as to require their publication: if for the preservation of their subject matter. The work of the historical archives will be a process of building up these archives with documents eliminated. The future second selection will be a considerable economy in printing and rational utility of

5. The need for making available to the country the historical archives as a whole, will require a decision of a general history. Utility and economy will be achieved this way than by the publication of the entire historical section is preparing and publishing a series of aspects of the war, with a view to satisfying the needs of the public. The records are necessarily incomplete, and in some cases the sources from which they are drawn; for the sake of

from complete. Furthermore the publication of monographs of detached acts of the naval effort during the war can not fill the broader need for a comprehensive understanding of that effort as a whole. There appears to be a satisfactory course but to undertake the preparation of an official history the archives reach approximate completion.

1. The nature of the work in progress, and in prospect, obviously requires a great degree of both specialization and permanence among the supervisory personnel of the historical section. The last appropriation act authorized retention on active duty in this section of three reserve officers until July, 1922. Unless the work of the section is to be handicapped seriously this authorization should be made permanent and a way kept open for the retention of the officers mentioned.

2. The technical knowledge of officers must be combined with the special abilities of the professional historian if a satisfactory naval history is to be produced. Hence it is strongly urged that previous recommendations of my predecessor and others for the appointment of a well-qualified civilian historian to the historical section be adopted by Congress.

3. The following recommendations are therefore made for adoption as policies; to be carried out as closely as circumstances permit, and where necessary being urged upon Congress on appropriate occasions:

1. Moderate expansion of the office force, as practicable under a limit of about \$100,000 annually in funds, with a view to completion of the work of archives existing in about five years.

2. Publication of a series of preliminary monographs upon certain of the Navy's principal war activities. (This has been done with the object of satisfying public demand for such matter at a reasonably early date.)

3. Ultimate publication of a limited number only of the original archive documents, selected with reference to their special interest and importance.

4. Ultimate preparation and publication of an official general naval history of the war.

5. Maintaining permanence of the supervisory force of the office, most of whom are already specialized in the work.

6. Continuation of present force of three reserve officers and appointment of one or more well-qualified civilian historians within about two years.

D. W. KNOX,
Captain, United States Navy.

NAVY DEPARTMENT,
Washington, D. C., February 21, 1922.

1. To: The Secretary of the Navy.

2. To: Officer in charge, historical section.

3. To: Chief of Naval Operations.

Subject: The mission of the historical section.

Reference: (a) Your letter of December 19, 1921.

The recommendations made in subparagraphs 2, 3, and 4 of paragraph 8 of reference (a) are approved and will be considered from this date as the mission of the historical section. The recommendations made in subparagraphs 1 and 6 are approved and have already been forwarded to the Judge Advocate General with the directions that he will, when later directed, prepare the necessary legislation.

T. ROOSEVELT, *Acting.*

THURSDAY, MARCH 23, 1922.

OFFICE OF CHIEF OF NAVAL OPERATIONS.

STATEMENTS OF ADMIRAL R. E. COONTZ, CHIEF, AND LIEUT. COMMANDER H. W. HILL, AID.

SALARIES.

Mr. KELLEY. This year for the statutory roll you have \$25,650. How much are you asking for the coming year?

Admiral COONTZ. An increase of \$1,000 for the chief clerk.

Mr. KELLEY. What is the salary of chief clerks generally out the department?

Admiral COONTZ. \$2,250. This item appears in all of Commander HILL. That was the decision of the they were decidedly underpaid and should be increased.

Mr. KELLEY. This is the only change in your statutory list? Admiral COONTZ. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. For your temporary roll you have \$40,000 How much are you asking for next year?

Commander HILL. For next year we are for a \$33,720. There is a little change to be made.

If I go right down the list you can explain them afterwards.

Mr. KELLEY. Yes, sir; proceed.

Commander HILL. In the principal clerk, \$2,000, be changed from four to three. There was a person who is now chief clerk in the Bureau of transferred. We should like to retain the word employ not more than four at \$2,000 each, three people at \$1,800, and should the re through, without increasing the appropriation, we would open so as to let us give one a promotion That is the appropriation at all.

The estimates as submitted call for three at \$1,800 Captain Watts, who was talking to you the other day in letter that the Secretary had submitted for a p charged against the appropriation for gunnery exercising performances, you asked that that be not considered appropriation, but that it be brought up when we this part of the bill. The effect of that would be to \$1,800 to four at \$1,800. Having stricken out one at net decrease in the total of \$200, \$33,720.

Mr. KELLEY. In all other respects the figures are the current year?

Commander HILL. No, sir. This indicates a decrease this year's expenditures. This is a net decrease of an amount left after the people we have working transferred.

Mr. KELLEY. It is the same as you had, except referred to other bureaus?

Commander HILL. No, sir; it is 6 per cent reduction have left after all the readjustments are made.

Mr. KELLEY. The only change is that which you have stated, except the transfers?

Commander HILL. The only change shown here estimates.

Mr. KELLEY. How many officers are detailed to the Chief of Operations?

Commander HILL. For that part of the part of the clerical appropriation there are so

Mr. KELLEY. Have you the grades?

under HILL. No, sir; I could put that in the record with the other officers.

ALLEY. You need not put in the grades, just the number.

under HILL. I can tell you the various sections coming under it. I do not know whether you understand just what it

ALLEY. If you will put a short statement in the record that time.

The divisions concerned are: Chief's office, war plans division, policy section, chief clerk's office, confidential files, ship movements division, gunnery exercises and engineering performances division, submarine division, and naval districts' division.

under HILL. There is only one other thing. The work in it will not be very much affected by any reduction in personnel. As a matter of fact, the more the operating appropriations are reduced the more work it throws on us, because we will have to do very much more carefully on the movement of the ships in order to keep within the reduced appropriations. The more you reduce the appropriations the more work it means for the administering part.

under COONTZ. The Chief of Naval Operations has within the last year, commencing in July, had to take over an enormous amount of work, and it has been done without any increase in the force; on the contrary, I propose to reduce the total force by 10 per cent for the next fiscal year.

THURSDAY, MARCH 23, 1922.

STATEMENT OF DIRECTOR OF NAVAL COMMUNICATIONS.
STATEMENT OF COMMANDER L. NOYES, DIRECTOR.

SALARIES.

ALLEY. You have this year for your statutory roll \$150,000?
under NOYES. Yes, sir.

ALLEY. And you are asking for how much for next year?

under NOYES. \$134,300, sir.

ALLEY. This is the radio business?

under NOYES. Yes, sir.

ALLEY. And the telephone and telegraph?

under NOYES. Yes, sir; the handling of all the commercial communications for the entire United States in addition to all the Government departments.

ALLEY. How many employees have you altogether?

under NOYES. Ninety-four, sir.

under ALLEY. How many of those are enlisted men?

under NOYES. None, sir.

under ALLEY. All civilians?

under NOYES. Yes, sir. This is a reduction of 13 from this year, 700 from the current year, but \$8,500 of that is transferred, so the actual reduction is \$7,200.

under ALLEY. What is the pay of the 94 civilian employees?

Commander NOYES. \$134,300. There are no increases.

TELEGRAPH OPERATORS.

Mr. KELLEY. Do you have to have all of these telegraph
Commander NOYES. Yes, sir.

Mr. KELLEY. How many telegraph operators have y

Commander NOYES. 17 this year and 16 next year. I
the chief telegrapher and the telegraph supervisors.

Mr. OLIVER. What proportion of your business is
Commander NOYES. In the Navy Department?

Mr. OLIVER. In this particular department.

Commander NOYES. There is a great deal of work
sense which we have to perform for the other Gove
the United States as a whole. The International Radio
Convention requires one office in each country to
accounts of all ships of that country. After a c
Commerce, and Navy Departments in 1913, this
to the Navy Department to carry out the treaty.

Mr. OLIVER. What part of your work is not strictly

Commander NOYES. That is a part of the work.

Mr. OLIVER. What proportion does that bear to
which you perform; is that strictly naval work?

Commander NOYES. No, sir. It was assigned to
partment by this treaty which the United States is bound

Mr. OLIVER. Does that constitute the larger part of the

Commander NOYES. I should say one-quarter.

Mr. KELLEY. Is your telegraph office open all night?

Commander NOYES. Yes, sir.

Mr. KELLEY. How many operators are there

Commander NOYES. It is on a sliding scale
eight hours a day—the civilian employees. I
ferent hours, so at the time of the greatest I
most on. The result is that they vary in ti
4.30 they will be like that [indicating], so that
be covered by the largest number of operators.

Mr. KELLEY. Is it necessary to have the office

Commander NOYES. Yes, sir.

Mr. KELLEY. Did you do that before the war?

Commander NOYES. Yes, sir.

Mr. KELLEY. How many operators did you have

Commander NOYES. I was not here at that time
they had—

Mr. KELLEY (interposing). Mr. Curtis might

Mr. CURTIS. No; I do not know the number. I
the record.

Mr. KELLEY. It was not more than one!

Commander NOYES. Before we entered the war?

Mr. KELLEY. I mean before 1914.

Commander NOYES. Originally there was
Navy Department. The various offices did
ally.

Mr. KELLEY. And they got their telegrams fr
out to them?

Commander NOYES. Yes, sir.

. KELLEY. And they did not deliver the messages from the office until morning, probably?

Commander NOYES. No, sir.

. KELLEY. It seems like a large number—17 operators?

Commander NOYES. One point in connection with that, the Navy Department at that time did nothing in connection with the other Government departments. Now we handle for all the Government at Washington an increased amount of their business by radio and leased lines, which amounted to \$1,000 last week.

. KELLEY. What do you do with the messages which come in office hours?

Commander NOYES. The officer on watch, if it requires action, calls the appropriate officer of the Navy Department by telephone.

. KELLEY. At his house?

Commander NOYES. Yes, sir.

Colonel ROOSEVELT. That is done quite often. I have been called all times on various matters.

Commander NOYES. Before the war, the department was closed right. At the time when the *Maine* was sunk in Habana Harbor the telegraph company did not deliver the message until the next morning.

. KELLEY. You need 17 operators?

Commander NOYES. Sixteen.

Air Admiral COONTZ. You have made a reduction this year of how many?

Commander NOYES. \$7,200, 6 per cent, although the work has increased rather than decreased.

THURSDAY, MARCH 23, 1922.

OFFICE OF NAVAL INTELLIGENCE.

STATEMENT OF COMMANDER R. E. INGERSOLL.

SALARIES.

. KELLEY. You had a statutory roll of \$16,500 last year. How do you want this year?

Commander INGERSOLL. The estimates for this year were \$17,650 for the same number of clerks. Two hundred dollars of the increase was counted for by the transfer of an \$1,800 clerk to the office of Naval Intelligence and by the transfer of a \$1,600 clerk to the Secretary's office. This does not involve any change in the total for the Department. There is an increase of \$950 in the salary of the chief clerk to bring his salary up to compare with that of the clerks of other offices in the Navy Department like the Hydrographic Office, Naval Observatory, and others, which, I believe, was moved by the Budget Officer and the Secretary. The present chief clerk of the Office of Naval Intelligence has been there 34 years and he has had no promotion in 20 years.

TEMPORARY EMPLOYEES.

Mr. KELLEY. You have a lump sum this year of \$15,000. How much are you asking for next year?

Commander INGERSOLL. We ask this year for \$13,380, which reduction of \$1,620, or more than 5 per cent. That will be for clerks.

Mr. KELLEY. Do you have any special representatives of the office in foreign countries?

Commander INGERSOLL. Not under these rolls. All of these clerks are in the Washington office.

Mr. KELLEY. Your representatives abroad are carried under the Navy?

Commander INGERSOLL. They are all carried under Pay, miscellaneous.

Mr. KELLEY. Do you have any special sorts of investigations you did not undertake before the war, or have you discontinued of your war investigations in the United States?

Commander INGERSOLL. This estimate does provide for information at home or abroad. This is all for the office work here in Navy Department Building in Washington.

Mr. KELLEY. The Naval Intelligence work on the outside is carried—

Commander INGERSOLL (interposing). It is all carried under appropriation Pay, miscellaneous.

Mr. KELLEY. This is merely for the clerical end of it?

Commander INGERSOLL. Yes, sir; right here in the Navy Department Building.

THURSDAY, MARCH 23, 1923.

BUREAU OF ENGINEERING.

STATEMENT OF REAR ADMIRAL JOHN K. ROBISON, CHIEF

SALARIES.

Mr. KELLEY. Admiral, you have this year \$39,390 for your statutory roll. How much are you taking off for next year?

Admiral ROBISON. We ask for the same amount as last year, with the following exceptions: An increase in the chief clerk's pay \$2,250 to \$3,250. Whether, or not you find it practicable to grant that, I feel that it is my duty to invite your attention to the fact that this man is worth that money and more, and that he saves his pay several times during the course of the year. Second, I decrease the number of \$1,600 clerks from five to four, and the number of \$1,200 clerks from seven to five, to allow for transfers to the office of the Secretary and to the Bureau of Aeronautics. Other than these transfers there were no decreases in the statutory roll.

TEMPORARY EMPLOYEES.

Mr. KELLEY. You have a lump-sum appropriation of \$100,000 this year, and you are asking how much?

Admiral ROBISON. We are asking \$80,000. That appears to be a considerable decrease; but that decrease is not entirely a saving.

by the record, some of them are transfers, but there is a very considerable net decrease.

Mr. KELLEY. How many clerks have you, all told?

Admiral ROBISON. We had last year 118, and we have now on the au's rolls 94.

Mr. KELLEY. And you are asking for how many?

Admiral ROBISON. Sixty-eight on the lump-sum roll and 28 on the story. I will say further, Mr. Chairman, that if I find it possible to make a cut in that number I will do so.

Mr. KELLEY. What is your opinion about that? Do you think you are able to do that?

Admiral ROBISON. I intend to do so. This appropriation, I think, perhaps, will be compared by adding the two figures with the appropriations for 1916 or 1917. It is considerably larger; but we are attempting to do considerable additional service to what we were doing then. When you make the comparison I would invite your attention to that fact. In the first place radio has expanded, as we know; second, there has been introduced a system of sound work, of which you have heard but little, but with which we are doing rather remarkable things. In addition we are very much improving our service of information to the fleet as to methods and techniques. That appears not so much on this page 64, for salaries of specialists, as under the head of the limitation for draftsmen and technical employees for the Navy Department on page 65.

DRAFTSMEN AND OTHER TECHNICAL EMPLOYEES.

Mr. KELLEY. How much do you figure you can cut this item?

Admiral ROBISON. That item this year is \$190,000.

Mr. KELLEY. You should be able to make quite a little cut there, Admiral?

Admiral ROBISON. I expect to make some cut.

Mr. KELLEY. I notice that on February 14 you had 67 people on the technical roll.

Admiral ROBISON. Yes, sir; I think that limitation should be at \$175,000. I have asked for \$184,000.

Mr. KELLEY. It seems to me that you could reduce somewhat in the bureau.

Admiral ROBISON. I have now under way 150 problems of design which are being handled by the technical force. If I do them—I own the methods, and I do not have to pay licenses when I buy material or account of patents. That means the saving of a considerable amount.

There are 150 problems under consideration and most of them are problems pertaining to the simplification of the means of production. I am speaking of radio work chiefly.

Mr. KELLEY. You had 26 technical people before the war?

Admiral ROBISON. We have 67 now and the only reason we have more than that is because I have not yielded to insistence on the part of other people. They are performing a very difficult service, some of them are very important. They, I think, are vital if we are to be successful.

Mr. KELLEY. Does this number 67 include your inspectors?

Admiral ROBISON. Out in the field; no, sir.

Mr. KELLEY. These are people in the office?

Admiral ROBISON. The inspection force has been cut last four months by approximately \$150,000. It is now with the pre-war figures.

Mr. KELLEY. You would like to have these technical along?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. For that you want \$175,000?

Admiral ROBISON. I do not think you could afford to pay that. We have asked for \$184,000.

Mr. KELLEY. That is pretty large.

Admiral ROBISON. You can cut that if you will; but, if it will cost in other places much more. These are the men I to find means by which I can save money, and they are. They have been weeded out and I have no worthless men there.

THURSDAY, MARCH 21

BUREAU OF CONSTRUCTION AND REPAIR

STATEMENT OF REAR ADMIRAL DAVID W. TAYLOR,

SALARIES.

Mr. KELLEY. You have \$59,830 for your statutory roll: How are you asking for next year?

Admiral TAYLOR. Just enough increase to raise the pay of clerk, Mr. Chairman.

Mr. KELLEY. I do not suppose we have jurisdiction of We passed a resolution not to increase salaries pending this tification. While it is a hardship, and while I know that are valuable, I am afraid that we can not do it.

Admiral TAYLOR. I have been asking you to raise the pay chief clerk for seven years. He is absolutely entitled to it. very much underpaid for the work that he does.

Mr. KELLEY. In all other respects your estimate the appropriation for the present year?

Admiral TAYLOR. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. You have a lump-sum appropriation are cutting that down how much?

Admiral TAYLOR. To \$56,530. That is largely due to we transferred 15 men to the Bureau of Aeronautics. based upon what we retained, is from \$63,370.

In connection with the clerical force, I would attention again to the diagram showing the up and down and how the force has gone up a shows the new numbers of correspondence and accurate gauge of the work coming in and You will observe how the line went up dur shows that our numbers have gone down

wn. We dropped there, as you will see, when the Bureau of
tics took over a part of the work and part of our people.

DRAFTSMEN AND OTHER TECHNICAL EMPLOYEES.

ELLEY. You are asking how much this year for your tech-
t?

al TAYLOR. For the technical list the estimate was \$214,000.

ELLEY. That number was 74 on February 14.

al TAYLOR. We had \$275,000 last year, and 25 of the force
n transferred to the Bureau of Aeronautics.

ELLEY. Have you transferred some since the 14th of Feb-

al TAYLOR. No, sir; not since the 14th of February.

ELLEY. This number here shows 74, making a total of

al TAYLOR. Yes, sir; that is correct. The estimate, I think,
1,000, but at the present time we are spending at the rate of
. I would like to invite special attention to the fact that
st of March we had two less on the technical list than we
he 1st of July, 1916. At that time we had 76, and now we

ELLEY. You want about \$200,000?

al TAYLOR. \$200,000 will cover the present force.

THURSDAY, MARCH 23, 1922.

BUREAU OF ORDNANCE.

MENT OF REAR ADMIRAL CHARLES B. McVAY, JR., CHIEF.

SALARIES.

ELLEY. Admiral, you had this year \$31,830 for your statutory

al McVAY. The estimate for next year is \$32,830, which in-
1,000 recommended for the chief clerk, who has been in the
or 40 years.

ELLEY. If that is not granted—

al McVAY (interposing). It will be the same as last year.

ELLEY. That is your statutory roll?

al McVAY. Yes, sir.

TEMPORARY EMPLOYEES.

ELLEY. For your additional employees, what is the estimate?
al McVAY. The estimate for the additional employees is
from \$40,000 to \$36,400.

ELLEY. Does that mean a reduction or transfers?

al McVAY. There were no transfers, and it is a reduction.
akes a reduction of three positions at \$1,200, and two of
already vacated.

original design work. The working drawings are made
yard and stations.

MONDAY,

BUREAU OF AERONAUTICS.

**STATEMENTS OF REAR ADMIRAL WILLIAM
LIEUT. COMMANDER R. M. GRIFFIN
COMMANDER T. G. ELLYSON, AND
MINES.**

7

REORGANIZATION OF BUREAU.

Mr. KILLEY. Admiral, have you any brief
you would like to make before we take up t
mate, about the situation as a whole?

Admiral MOFFETT. I would like to sta

Mr. KELLEY. How about the organization of your new bureau; how is it working out?

Admiral MOFFETT. The bureau went into actual operation the 1st of September last. We employ in the bureau seven less officers than we did before, and we have, I think, one clerk less—that is, in the bureau itself—than we had before. We expected to save more, as a matter of fact, but when we got actually into operation we found that most of the people that were transferred to us were those who had occupied the minor positions in aviation affairs. There were many other people in the department under the different bureaus who were really doing some aviation that were not transferred to us.

Mr. KELLEY. Do you have a statutory list of your bureau or do you pay the clerks from the lump sum?

Commander GRIFFIN. The law says that the people, in the discretion of the Secretary of the Navy, performing aviation duties in the different bureaus were to be transferred to the Bureau of Aeronautics.

Mr. KELLEY. You pay them out of a lump sum, or do they receive statutory salaries?

Commander GRIFFIN. The clerks transferred to us are paid this year out of the other bureaus' appropriations.

Mr. KELLEY. Are the salaries fixed by law or are they paid out of the lump sum?

Commander GRIFFIN. I think the salaries as transferred were fixed by law. I think the Secretary can change that.

Mr. KELLEY. I was asking whether or not you had a statutory list, and in people at salaries fixed by law?

Commander GRIFFIN. The chief clerk in the bureau is one.

Mr. KELLEY. That is the only employee whose salary is fixed?

Commander GRIFFIN. No, sir; there are four others.

Mr. KELLEY. How are the other salaries fixed?

Commander GRIFFIN. We have no discretion in the matter; we have moved these employees from other bureaus.

Mr. KELLEY. Did you take them at the salaries they were receiving before?

Commander GRIFFIN. Yes, sir.

Admiral MOFFETT. We brought that up by writing a letter which was sent to you some time ago and in which we asked to be allowed \$10. The Budget went in at \$43,000. That was gotten up in a hurry; we had to get our reports in.

Mr. KELLEY. Then, you took these employees from the other bureaus?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And transferred them to your bureau at the same salaries they were receiving?

Admiral MOFFETT. That is right.

Mr. KELLEY. If they were statutory employees in the other bureaus, carry them on your roll as statutory employees?

Commander GRIFFIN. We never had a roll. They are paid by the old bureaus of the Navy Department.

Mr. KELLEY. And when your bureau was organized you paid them from your bureau?

Commander GRIFFIN. No, sir. We have had their services, but they have been paid from their old bureaus.

Mr. KELLEY. When you start in the 1st of July y them yourself?

Commander GRIFFIN. Yes, sir. That appears in the bill. of \$43,000 was submitted for the Budget a few days after into action and before all the employees were transfer tion.

Admiral MOFFETT. There was a letter written to you. effort made by the chief clerk, Mr. Curtis, to try to make u compare with the other bureaus. We had no leading p instance, the different bureaus transferred to us low-salar We had to get on the best we could with what they gave

CIVILIAN OFFICE FORCE—SALARIES.

Mr. KELLEY. You have a chief clerk at a salary of Commander GRIFFIN. At the present salary of \$2,250. sion proposed in the bill is that all chief clerks shall be \$3,250.

Mr. KELLEY. You have submitted an estimate for clerk at \$2,400, one correspondence clerk at \$2,000, o \$2,000, and one stenographer at \$1,800?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Have you those positions now in the bu ?

Admiral MOFFETT. No, sir; we have not the financial have people performing those duties.

Commander GRIFFIN. The present person performing financial clerk is getting \$1,200 a year.

Mr. KELLEY. You have some one in the u which you propose to have done by this fina

Commander GRIFFIN. I do this work, assi by a

Admiral MOFFETT. The other bureaus have clerks, and I think it is important to have keep the financial accounts of all of our appropri

Mr. KELLEY. When the bureau was organized y to have a chief clerk?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And then you were authorized to help as the other bureaus doing this work should

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What authority have you, under other positions??

Commander GRIFFIN. It is a question of the c law. The law says that the Secretary is author transfers.

Admiral MOFFETT. The act of July 12, 1921, prov

The Secretary of the Navy is authorized to transfer nautics such number of the civilian, technical, clerical, nel, together with such records, equipment, and fu^{all} aeronautic work under the various bureaus of the or Marine Corps as in his judgment may be necessary.

Mr. KELLEY. They have been assigned now and y up?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Does not that fix your status?

miral MOFFETT. No. The other bureaus, with few exceptions, use just as little as they could. They said that they could not long. They gave us just as few as they could, the low-salaried ones, and we have gotten on with them as best we could. This is the effort to reorganize the clerical force of the bureau so that we will be on a par with the other bureaus.

Mr. KELLEY. When these clerks were transferred, did they bring their salaries with them?

Commander GRIFFIN. Yes, sir; most of them were stenographers and typists.

Mr. KELLEY. What you want is a lump sum of \$56,010 for clerical salaries, is that right?

miral MOFFETT. Instead of the \$43,310.

Commander GRIFFIN. But we do not want to pay the salaries at once. We do not have any intention of immediately filling those positions.

Mr. KELLEY. If this extra \$1,000 is not given to the chief clerk, what about the other salaries? You would not want to pay the chief clerk \$2,250 and the financial clerk \$2,400?

Commander GRIFFIN. No, sir. We have nobody at present drawing salary.

Mr. KELLEY. \$2,400?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. What is your present pay roll?

miral MOFFETT. \$52,750.

Mr. KELLEY. Upon what basis was this cut made to \$43,000?

Commander GRIFFIN. It was not cut. This figure went into the Budget Department the 4th of September. The clerks were not transferred instantaneously on the 1st, when the Bureau of Aeronautics was formed. Thirty-five clerks were transferred, the other bureaus taking everybody they thought they could. Then they sent four additional clerks who arrived too late to get into the Budget.

Mr. KELLEY. What is the total number of clerks now?

Commander GRIFFIN. Forty-four, including clerks loaned, and one secretary.

Mr. KELLEY. And your total pay roll per month is how much?

miral MOFFETT. This includes the people who are loaned to us, \$50,000—charitably loaned to us.

Mr. KELLEY. That is what your yearly pay roll would be with the present force?

miral MOFFETT. Yes, sir.

Mr. KELLEY. And you would like to provide four supervisory positions?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. Which would amount to how much in addition?

Commander GRIFFIN. \$8,200.

miral MOFFETT. No; only \$5,000.

Commander GRIFFIN. It does not check because the present pay roll includes clerks loaned in addition to those transferred.

Mr. KELLEY. If we do not increase the salary of your chief clerk the balance will be \$55,010?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. If you are not going to fill the financial clerk's position, we could take out \$2,400 more?

Commander GRIFFIN. No, sir.

Mr. KELLEY. How much?

Commander GRIFFIN. We would not want you to financial clerk's position. Unless we are going to c we have now we will have to have \$52,750.

Mr. KELLEY. That is your present pay roll?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. What you are asking is \$55,010 and \$1,000 the chief clerk?

Commander GRIFFIN. That is it.

Mr. KELLEY. Have you followed in your estima the language of the bill closely as it was authorized

Admiral MOFFETT. The wording is pretty much the have lumped it so it would be similar to the other

Mr. KELLEY. It is very difficult to make exact c 1502
you follow the appropriations that have been ma nere

Admiral MOFFETT. The details are given later on 151.

EXPENSES INCIDENT TO PERSONAL SERVICE.

Mr. KELLEY. Suppose we take up item No. 2, "For ex dent to personal services; for aviation, ck clothing, subsistence, etc.," \$50,000. What are item?

Admiral MOFFETT. We explain it pretty much in The items are: For aviation clothing, \$20,000; for k subsistence, and expenses incident to flights in airc.. ments in settlement of expenses in connection with packing, and shipping of aircraft landed away f \$20,000; and for incidental expenses for ships, offices, such as photographing, technical books, tionery, supplies, and instruments, \$10,000.

Mr. KELLEY. What did you pay this item out of last year? are you paying it out of now?

Commander GRIFFIN. Out of maintenance.

Mr. KELLEY. That is a part of maintenance,

Admiral MOFFETT. We paid it this year out of

Mr. KELLEY. There is an item in the curr of \$49,250 for navigational, photographic, and ment, including repairs thereto, for use with airc t ing on June 30, 1921. Where is that included?

Commander GRIFFIN. That is included under

Mr. KELLEY. This item 2 is a new item entirely;

Commander GRIFFIN. Yes, sir. Of course, we pay right along.

Mr. KELLEY. How do you arrive at the figure of \$50 do you base that on?

Commander GRIFFIN. We put that in bef formed, and it was based on very inadequa in the present indication is that it should m son why this method was introduced. mixed up in an item of four or five millie in the shuffle.

. KELLEY. I wish you had stuck to the language of last year's. It would make it easier. This appropriation is made in lump anyhow, is it not?

Commander GRIFFIN. Yes, sir; it always has been.

. KELLEY. Suppose we start on page 124 of the bill. Can you give us a statement of what you want that is fairly equivalent at first paragraph for aircraft and accessories in course of construction and manufacture?

Miral MOFFETT. We have put in there \$250,000.

. KELLEY. Give us the details of that.

Miral MOFFETT. This year we have \$440,000. We cut that because when we made an estimate of \$21,500,000 we were told to cut \$1,500,000. Therefore we went over the estimates and cut it because we thought it would do the least harm.

COST OF CONSTRUCTION OF GIANT BOAT AND "ZR-1."

. KELLEY. What aircraft have you under construction now?

Miral MOFFETT. The ZR-1 and the giant boat.

. KELLEY. The ZR-1 is under construction?

Miral MOFFETT. Yes, sir; the giant boat has been stopped in to save expense. We stopped that boat, but I would like to build it. That giant boat was stopped because we did not have the money.

. KELLEY. How much did you ask for originally under this item \$300,000?

Miral MOFFETT. I have not that information with me.

. KELLEY. How much will it take to finish the ZR-1?

Miral MOFFETT. It will require \$400,000 next year.

. KELLEY. Have you any balance on hand?

Miral MOFFETT. Yes, sir; we have some now.

. KELLEY. How much is your balance?

Miral MOFFETT. The last balance on that appropriation, I think, is about \$200,000.

. KELLEY. You have not used much of that?

Miral MOFFETT. The ZR-1 is largely under contract for material, and we are employing a few men to fabricate her material at the factory. We have reached the point where we can employ men to start her erection at Lakehurst. That is what we are doing with what is left of the appropriation now.

. KELLEY. How much will it take to finish her?

Miral MOFFETT. About \$400,000.

. KELLEY. From this point on?

Miral MOFFETT. No, sir; from the 1st of July.

. KELLEY. You will spend \$300,000 between now and the 1st of July?

Miral MOFFETT. I hope so. We will probably spend \$200,000, between two and three hundred thousand dollars.

. KELLEY. You will spend all of the balance of this fund in finishing the balance of this fiscal year?

Miral MOFFETT. I hope so; yes, sir.

. KELLEY. What is her exact condition now?

Miral MOFFETT. She is being fabricated at the factory. Her parts are being fabricated and then transferred to Lakehurst. When she will be put up in the hangar at Lakehurst.

Mr. KELLEY. How much has been spent on her up to date?

Admiral MOFFETT. About \$1,500,000.

Mr. KELLEY. Give us the exact amount.

Admiral MOFFETT. We had spent to January 31, 1922, and we have spent or obligated up to date \$1,400,000. It is \$600,000 more to complete her.

Mr. KELLEY. You have spent or obligated \$1,400,000 on her?

Admiral MOFFETT. Yes, sir; that much or more.

Mr. KELLEY. You have either spent or obligated that?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. It will take \$200,000 more?

Admiral MOFFETT. \$200,000 this year and \$400,000 next year.

Mr. KELLEY. Besides the \$1,400,000?

Admiral MOFFETT. Yes, sir. The total cost will

Mr. KELLEY. Then, up to the 1st of July you expect to \$1,600,000 on her?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Then you want \$400,000 with which to next year?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Then, how will \$250,000 finish it?

Admiral MOFFETT. It will not finish it.

Mr. KELLEY. Will it run on another year?

Admiral MOFFETT. No, sir. What we will try to do is to write something here and there from other items. We try to make the subheads as far as we can, because we know that as far as the members of the committee want us to do it, we will do it. We try to make the subheads.

Mr. KELLEY. Where there is an item carried for which you exactly how much money will be required, we would like to write that amount in the bill and reduce the uncertainty. If you know that you can save \$400,000 next year and the 1st of July, why would it not be to you \$400,000 in this item rather than the \$250,000 you have with a view to squeezing it out of some other item?

Admiral MOFFETT. That is all right, if you will, but that estimate was made up last July.

Mr. KELLEY. It will not cost more than \$400,000.

Admiral MOFFETT. I hope not; no, sir.

Mr. KELLEY. How much have you left out of the estimate?

Admiral MOFFETT. The giant boat was supposed to be \$440,000, but we stopped work on her. The \$250,000 was more important.

Mr. KELLEY. Were you building the giant boat?

Admiral MOFFETT. It happened to be so. It was to be built by the 1st of July, and the intention was to build it, but when the necessity came for cutting down the bill, we had to leave her so as to spend the money where it was most needed.

Mr. KELLEY. Which one of these items is the most important? The giant boat against? Have you any other items?

miral MOFFETT. Yes, sir; the power plant is completed and cost, the original experimental engineering investigations and data, \$150,000; only about \$50,000 worth of work has been done on hull; the original estimated cost of the giant boat complete was \$450,000.

Commander GRIFFIN. The work was stopped on her last fall.

. KELLEY. Do you know what funds you were building her for?

miral MOFFETT. I think in the beginning the funds came from construction and experimental subheads.

. KELLEY. Not out of the appropriation for aircraft that was construction?

miral MOFFETT. No, sir.

. KELLEY. Was not that giant boat started quite a long time

miral MOFFETT. I think two years ago.

. KELLEY. Then it would be under this item for aircraft under construction on June 30, 1921, would it not?

miral MOFFETT. Yes. I know that when I came here, and I have been here a little over a year, this appropriation was cut to \$13,000, and I was saving in every way, and that was one of the savings we made.

. KELLEY. You do not want to do anything on her this coming

miral MOFFETT. Not with the money we have got.

. KELLEY. If we gave you \$400,000 for this purpose you would use all of it on the ZR-1?

miral MOFFETT. Yes, sir.

. KELLEY. What will you fill the ZR-1 with when you get her?

miral MOFFETT. We will fill her with helium.

HELIUM—AMOUNT ON HAND AND CONTROL OF PLANT.

. KELLEY. How much helium have you on hand?

miral MOFFETT. We have 2,400,000 cubic feet.

. KELLEY. How much will it take to fill her bag?

miral MOFFETT. Two million one hundred and fifteen thousand cubic feet.

. KELLEY. Who owns that helium—you or the Army?

miral MOFFETT. Both of us. That is to say, all of the expenses for helium have been paid jointly by the Army and Navy, on a joint basis.

. KELLEY. Is the Army turning over to you all of the lighter-than-air work?

miral MOFFETT. No, sir.

. KELLEY. Are you turning that work over to them?

miral MOFFETT. No, sir. The lighter-than-air situation is this: The development and procurement of rigid airships was allotted to the Navy by an agreement between the Secretary of War and the Secretary of the Navy, as recommended by the joint board. Since the Navy has been trying to carry that out. That includes the development of the ZR-2 and the development of the ZR-1, which was built in this country and started here. We have been doing that

work. It was agreed between the Secretary of War and the Secretary of the Navy that the helium should be developed jointly.

Mr. KELLEY. What I want to know is whether the Navy has this helium?

Admiral MOFFETT. There is a factory at Fort Worth.

Mr. KELLEY. I know all about the factory, but who owns the helium?

Admiral MOFFETT. The Army and Navy both own it. They are each entitled to one-half of it.

Mr. KELLEY. Will you put helium in this bag?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. How do you know that?

Admiral MOFFETT. We have got to do it.

Mr. KELLEY. You own only half of it and you will not have enough?

Admiral MOFFETT. I think there is every indication of our getting ahead with it. We have allowed \$250,000 in our estimate for next year, and the Army got \$400,000 in the bill as reported.

Mr. KELLEY. You have plenty of helium there owned by the Army and Navy to fill this bag?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. In other words, the Army has 2,400,000 cubic feet and the Navy has 2,400,000 cubic feet?

Admiral MOFFETT. No, sir. The Army and Navy together have a total of 2,400,000 cubic feet.

DESTRUCTION OF AIRSHIP "ROMA."

Mr. KELLEY. What was the name of the ship that was destroyed the other day?

Admiral MOFFETT. The *Roma*.

Mr. KELLEY. That was an Army ship, was it not?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. I noticed in the newspapers that some Army officer said that the reason why that accident happened was because the ship was not filled with helium, and that the reason it was not filled with helium was because Congress had failed to appropriate the money. Is that true?

Admiral MOFFETT. No, sir; they have helium.

Mr. KELLEY. They had plenty of helium, but they did not use it in the sack?

Admiral MOFFETT. Yes, sir; she held about 1,200,000 cubic feet. They had more than enough to fill her.

Mr. KELLEY. You have enough to fill this ship?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. Where is that stored?

Admiral MOFFETT. We have it stored at Fort Worth in flasks.

Secretary DENBY. I want to go back to the *Roma* a minute. You know why they did not put helium in the *Roma*?

Admiral MOFFETT. No, sir; I do not. I think it was partly a question of expense. There was some considerable amount of expense in the gas bags, I believe, and I think it was for that reason.

se of the expense. It now costs between \$83 and \$84 per thousand feet, while hydrogen costs about \$6 to \$10 per thousand feet. Leakage was about 30 per cent per month, or about 1 per cent a day in active flying operations. This leakage is very materially reduced if the ship is in the shed, when it falls to about 2 per cent a week.

KELLEY. Do you believe this new one that you are turning out looks like that?

ADMIRAL MOFFETT. We hope it will not. We are doing all we can to reduce the leakage. The leakage of helium is about two-thirds that of hydrogen.

KELLEY. They did not put helium in the *Roma* because they were not satisfied with the bag, and did not want to waste the helium?

ADMIRAL MOFFETT. I do not wish to speak for the Army, but that

KELLEY. They put hydrogen in the bag, and the accident followed?

ADMIRAL MOFFETT. Yes, sir; and the loss of life was probably due indirectly to the hydrogen.

KELLEY. They should court-martial that officer. How about that?

ADMIRAL MOFFETT. I would not send one up without being filled with helium. I think if we sent a large one up inflated with hydrogen and we had an accident it would be bad for us.

ADDITION OF ESTIMATE FOR CONSTRUCTION AND PROCUREMENT OF AIRCRAFT AND EQUIPMENT.

KELLEY. Let us turn to page 124 of the bill: For new construction and procurement of aircraft and equipment, how much are you asking for?

ADMIRAL MOFFETT. We have asked for \$6,631,450.

KELLEY. Have you a sheet showing how you want to spend

ADMIRAL MOFFETT. I would like to tell you about the estimate. The estimate was gotten up last September, according to the details given to you. Since then, while we have not asked for more, the sum being the same, we have asked for a change in the details. The catapult has been successful, and we have great confidence in that estimate was based upon what the planes actually cost, or of the type that we put on board ship. It is based upon the number they will need. As you will see, it is a little bit more.

KELLEY. More than the total estimate?

ADMIRAL MOFFETT. Yes, sir. You will see that we estimate for the float, for engines, etc., \$6,501,626. Now, with what we have added, or \$2,500,000, it would leave as the balance that we would have the sum of \$4,001,000.

KELLEY. You have estimated that you will need for new construction \$6,631,450?

ADMIRAL MOFFETT. Yes, sir.

KELLEY. And you will have on hand on the 1st of July how

ADMIRAL MOFFETT. \$2,500,000.

KELLEY. To add to this amount?

Admiral MOFFETT. We will have that spent by fiscal year.

Mr. KELLEY. I want to know the details of this \$6,631,450.

Admiral MOFFETT. Instead of \$6,631,450, that figure reduced to \$6,501,625. That is what we estimate.

Mr. KELLEY. And you estimate the balance available of July, 1922, at \$2,500,000?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. That leaves \$4,001,625 that you are purpose next year, is that right?

Admiral MOFFETT. Yes, sir. Now, then, that estimate, made some time ago, was based on 18 battleships.

Mr. KELLEY. Of this \$4,001,625, how much do you be required for aviation for the battleships?

FOR AIRPLANES AND BALLOONS.

Admiral MOFFETT. The first item is for fighting 129 planes, and we have on hand 39. Therefore we want

Mr. KELLEY. Ninety fighting planes?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. How much will they cost?

Admiral MOFFETT. About \$1,080,000. We want 31 observation planes.

Mr. KELLEY. At what cost?

Admiral MOFFETT. \$1,020,000.

Mr. KELLEY. What else do you want?

Admiral MOFFETT. We want 40 one-seater aeroplanes, cost \$280,000; we want 30 torpedo planes, to cost \$1,000,000; lighter-than-air kite balloons and balloons for observation, to cost \$120,000.

Mr. KELLEY. How many do you want?

FOR ENGINES.

Admiral MOFFETT. Eight. For engines, we want Lawrence 200-horsepower engines—

Mr. KELLEY (interposing). How many do you want?

Admiral MOFFETT. One hundred and forty-four 200-horsepower engines.

Mr. KELLEY. One hundred and forty-four

Admiral MOFFETT. \$1,180,800. We want 60 Lawrence 60-horsepower engines, cost \$550,000; 60 Lawrence 60-horsepower engines—

Mr. KELLEY (interposing). Are they included?

Admiral MOFFETT. No, sir; the 144 are included, and these are 60-horsepower Lawrence engines.

Mr. KELLEY. How many do you want?

Admiral MOFFETT. We want 60 of those engines.

Mr. KELLEY. What else?

Admiral MOFFETT. Eighty-one converted Lawrence engines, cost \$40,500. We have them, and the conversion will cost \$40,500.

Mr. KELLEY. Is that all of it?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What about spare parts?

miral MOFFETT. They come in underneath. We brought them in

For structural and engine spare parts, the estimate is \$1,300,325.

. KELLEY. What is the total of the other items?

miral MOFFETT. \$5,201,300.

. KELLEY. That gives a grand total of \$6,501,625?

miral MOFFETT. Yes, sir.

. KELLEY. And you have \$2,500,000 on hand?

miral MOFFETT. Yes, sir.

. KELLEY. This appropriation should be \$4,001,625?

miral MOFFETT. Yes, sir.

mmander GRIFFIN. We have that \$2,500,000 on hand, but we spend it before the 1st of July, or it will be no longer available. leaves \$4,000,000 as the amount needed for next year.

. KELLEY. You will spend \$2,500,000 to apply on next year's rements?

mmander GRIFFIN. Yes, sir.

. BYRNES. You expect to spend that money upon ships which not be completed until some time during the next fiscal year?

miral MOFFETT. Yes, sir. We have completed the plans to spend money, and we are working on that now.

. KELLEY. If we gave you \$4,001,625, it would supplement the you have on hand now?

miral MOFFETT. Yes, sir.

NUMBER AIRPLANES ON HAND AND REQUIRED.

. KELLEY. What do you want to buy 90 fighting planes for? ourse, these planes do not last more than a year, anyhow.

miral MOFFETT. I should say more than that: I think we can hem for two years. I would like to tell you about this catapult.

. KELLEY. There is nothing in here about a catapult.

Imiral MOFFETT. No.

. KELLEY. Then let us keep away from the catapult until we a it.

Imiral MOFFETT. It has a bearing, because there is no use of ng planes on ships unless you get them off.

. KELLEY. I know, and these planes are contingent upon furing catapults for the ships?

Imiral MOFFETT. Yes, sir.

. KELLEY. We will not have any trouble about that—that is, a nable number of catapults, and I do not mean by that that you asking an unreasonable number. How many fighting planes you on hand now?

Imiral MOFFETT. We have 39.

. KELLEY. And you want 90 more?

Imiral MOFFETT. Yes, sir.

. KELLEY. What is the condition of the 39?

Imiral MOFFETT. They are serviceable and we expect to use

. KELLEY. That will give you 129.

Imiral MOFFETT. Yes, sir; but it is based on where we put them what ships we put them on, etc. This plan is a part of a plan ave tried to work out, to cover the next five years, and, while

we can not get money that way, we have made a plan and we are trying to ask each year what we need to work out the whole plan.

Mr. KELLEY. How many three-seaters have you?

Admiral MOFFETT. We have 18.

Mr. KELLEY. How many one-seaters?

Admiral MOFFETT. We have none.

Mr. KELLEY. How many torpedo planes have you?

Admiral MOFFETT. We have 24, but they are of an old type—I mean we are improving them. We have a new torpedo plane which is better than anything we have on hand.

Mr. KELLEY. What is a torpedo plane?

Admiral MOFFETT. Well, it is a plane that is designed to carry a torpedo of 1,650 pounds, and we have old planes we had on hand. The twin pontoon planes are used for this purpose but they are not satisfactory. They are economical, and they have not the performance of the new type.

Mr. BYRNES. Has not the experience of the past determined as to the most efficient bombing plane?

Admiral MOFFETT. Yes, Mr. Byrnes, but, you know, it is not around an engine and you can do so much with it. When we design a plane we must decide what kind of use, and we have to take into consideration the weight. For instance, I can give you an example. We are now successfully developed on the Pacific coast, a torpedo plane we call the Douglass plane. She came up to all the requirements, the test requirements for altitude, the performance; that is, as to the consumption of fuel, the distance it can go with its full load, and that is the new torpedo plane we have had. The other planes were designed for that purpose.

Mr. KELLEY. How many have you?

Admiral MOFFETT. Well, we built three. One we want a new plane we build three for trial. One we expect to test to destruction, through the air, in order to see whether it is structurally sound. One through actual performance in the air and one in case anything happens.

Mr. BYRNES. It does look to me as though the war and the tests to which the planes would have furnished you with the necessary data upon the best type.

Admiral MOFFETT. You are quite right, and that is done.

Mr. BYRNES. Yet, you have built some which are efficient.

Admiral MOFFETT. For instance, we have the F5 L and the R6 L, the twin pontoon plane.

Mr. BYRNES (interposing). When did you build them?

Admiral MOFFETT. They were built a long time ago, and we have learned a great deal from them. They were found by experimentation, through wind tunnel tests, that with the same size plane you could

r, that is, with the same size plane you can lift twice as much designing and experimentation.

. BYRNES. Then you have found out more about these things since war than was found out during the war when they were using every day?

miral MOFFETT. I would not say that, but when the war came on had practically no aviation, and they had to jump in and use they had.

Commander ELLYSON. During the war they had no practical experience with torpedo planes, and it is a new development.

. KELLEY. What do you do, just drop the torpedo in the water?

miral MOFFETT. Yes, sir.

. KELLEY. It is a great thing, all right, and you want 30 of those?

miral MOFFETT. Yes, sir.

. KELLEY. Do they work pretty well?

miral MOFFETT. The one we had out there worked pretty well, we have two more now being completed.

. BYRNES. How many torpedo planes are you asking for?

miral MOFFETT. Thirty.

. KELLEY. These are mostly to go on the ships, are they?

miral MOFFETT. Yes, sir! we are going to try to put some on the ships.

. KELLEY. That is a rather mild answer.

miral MOFFETT. There are two types of torpedo planes; there is that is much heavier and that has a higher performance, but what we want to do is to use planes that can be carried on board ship. The same plane that carries a torpedo can be used for carrying bombs.

NUMBER AND KIND OF ENGINES ON HAND AND REQUIRED FOR 1923.

. KELLEY. The engines you are asking for below are to go in these ships, are they?

miral MOFFETT. That is right; yes, sir.

. KELLEY. You have 377 of them to go in 219 planes?

miral MOFFETT. Well, we must have spares.

. KELLEY. As a reserve?

miral MOFFETT. Yes, sir.

. KELLEY. Are the spare parts for the improved planes and engines for your old planes?

miral MOFFETT. Well, they will be for both.

. KELLEY. I suppose this is accurately worked out?

miral MOFFETT. It has been accurately worked out; even the engines for gasoline, which we have here, are worked out, and the actual cost we have had to pay.

. KELLEY. Most of the engines you now have are Liberty engines, are they not?

miral MOFFETT. Yes, sir.

. KELLEY. You do not have to buy any spare parts for them, do you?

miral MOFFETT. We did have to buy some; yes.

. KELLEY. Have you not great quantities of Liberty motors on hand?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Why do you not tear them down?

Admiral MOFFETT. That is what we are doing; but we near the end of what we have.

Mr. KELLEY. I suppose it will not be very long before will be out of date?

Admiral MOFFETT. They are practically out of date now. improved them by high compression; and the use of dope increased the horsepower of the Liberty about 10 per cent.

Mr. KELLEY. The only thing that strikes me about this it looks like you are buying too many.

Admiral MOFFETT. Well, it is based on the ships we put them on, and we actually expect to put them aboard.

Mr. KELLEY. Of the 90 fighting planes, how many v put to put on ships? If you can get the same general r way of training and experimentation without piling up tériel so much it saves the Government quite a lot of do not have a lot of this old stuff on hand.

Admiral MOFFETT. Well, we have provided for pl ships, cruisers, oilers, store ships, transports, ammunit pot ships, etc.

Mr. KELLEY. I suppose if you get airplane carriers, have them on these ships?

Admiral MOFFETT. Yes; we would.

Mr. KELLEY. Just the same?

Admiral MOFFETT. Yes. We think you can put the fi ship at all, on practically any type of ship, and that will some of this terror about what bombs are going planes will do a great deal, of course, but if you have a n answer to the bombing plane.

Mr. FRENCH. Are you developing apparatus on these so that the fighters can land and also take off?

Admiral MOFFETT. They can not land but they can

Mr. FRENCH. And that is why you need a catapult?

Admiral MOFFETT. Yes, sir; although I thi we will battleships—that is, on redesigned battl i , t

Mr. KELLEY. What is your stock of Li y ? the Army a great many of them stored about t c ntry;

Admiral MOFFETT. The Army has no available Liberty available for use by the Navy. We asked for them; not spare them.

Mr. KELLEY. It seems as though t y t Why did they take them clear to Ark s? wanted to pay the increased freight or them where they are safe?

Admiral MOFFETT. I think they have a flying field out tha.

Mr. KELLEY. In Arkansas?

Admiral MOFFETT. Yes; I think so; perha t l in that neighborhood. We have 3,020 Li t, everything; that is the total number now in 870 are now in use or assigned as spar id are new and in store. About 175 used er for spare parts, and additional engines rn

also been disassembled and useful parts salvaged for spares. Out 100 Liberty engines in stock are reserved to make it possible to obsolete airplanes. I do not think we will have the Liberty but a very few years longer.

Mr. KELLEY. Do you know how much you have in this \$1,300,000 spare parts for Libertys?

Commander GRIFFIN. Nothing.

Mr. KELLEY. This is for spare parts and mostly all for these new ones?

Commander GRIFFIN. Practically all for these new planes.

Mr. KELLEY. You have now given us \$4,001,625 as the amount necessary for new construction of planes, spare parts, and engines.

Admiral MOFFETT. Yes, sir.

SUPERVISION OF AVIATION FOR MARINES.

Mr. KELLEY. Have you any other new construction?

Admiral MOFFETT. Yes. We want a total for the marines of \$720,-

They want 12 fighting planes, or pursuit planes, as the marines Army call them—

Mr. KELLEY (interposing). They are the same thing, are they?

Admiral MOFFETT. Yes, sir; \$360,000; they also want 12 observation or reconnaissance planes at \$360,000, a total of \$720,000.

Mr. KELLEY. Why do they not get their planes from the Army?

Army has plenty of these, has it not?

Admiral MOFFETT. We do get some and we get all they will let us, but sometimes we think we develop a better plane than the Army for our purposes. We think our pursuit plane is a little better than anything the Army has at present, for our uses.

Mr. KELLEY. Where are they going to use these planes?

Admiral MOFFETT. They are using them right now in Santo Domingo and Haiti. I believe the marines in Santo Domingo and Haiti are doing more in land aviation than any one in the world except, perhaps, the commercial aviation between Paris and London.

The military purpose of the plane is so that the marines will use aviation just as they have other branches. They have their missions in Haiti and Santo Domingo and also at Quantico, at least, the place immediately adjoining Quantico.

Mr. KELLEY. How many fighting planes have they now?

Admiral MOFFETT. Forty.

Mr. KELLEY. What is an observation plane?

Admiral MOFFETT. That is a scouting plane or a reconnaissance plane.

Mr. KELLEY. It seems to be quite an expensive plane, as these are about \$30,000 apiece.

Admiral MOFFETT. Yes; it is.

Mr. KELLEY. Is that a plane with a boat attachment?

Admiral MOFFETT. No; that is a land plane, sir.

Commander GRIFFIN. That is the average cost, Mr. Kelley.

Mr. KELLEY. These planes are not to be used in conjunction with the Army but for the independent expeditions of the marines?

Admiral MOFFETT. Yes, sir. While we are talking about the marines I would like to mention the fact that we pay for the marines well as for the Navy. They are included in our \$17,000,000.

Mr. KELLEY. The marines are a part of the Navy.

Admiral MOFFETT. Yes; that is right.

Mr. KELLEY. Did General Lejeune ask for these?

Admiral MOFFETT. Yes, sir; the request came through approval.

Mr. KELLEY. Who is the head of aviation in the Marine

Admiral MOFFETT. Colonel Turner.

Mr. KELLEY. Is he under you?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Do you appoint him?

Admiral MOFFETT. No, sir. He was there when I came as a matter of fact the arrangement now is that when going to be detailed for aviation we recommend it.

Mr. KELLEY. Do you have a section in your office for Corps.

Admiral MOFFETT. No; but he is very near us; his next wing to ours; he is in charge of the Marine Corps; it happens that our offices are very close.

Mr. KELLEY. Does he have some employees who are not on roll?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. I thought you were at the head of the Aviation.

Admiral MOFFETT. I am; I think he still uses some people Marine Corps, but I am not sure about that.

Mr. KELLEY. Then we have not accomplished what we set out to do, namely, to put aviation in the Navy in one place.

Admiral MOFFETT. Yes; you have, because he is practically with us, although he is not in the same room.

Mr. KELLEY. Physical closeness does not make any difference unless you have control over him and over what he does.

Admiral MOFFETT. We do have, but as the Marine Corps is the base force—for instance, they are a part of the Navy and after it leaves us and goes out the personnel is controlled by Navigation and the Marine Corps, and so on. However, we keep in touch with what they are doing; we give them the money and we furnish them with the equipment as the Bureau of Ordnance furnishes them the guns; we furnish the marines with everything; we furnish the personnel with so on.

Mr. KELLEY. How can you furnish them with everything without inquiring into their needs?

Admiral MOFFETT. We do inquire into their needs; we know what their needs are. I see Colonel Turner very close to us as any other officer in the bureau; he is under my direct orders and is a member of the Bureau of aeronautics; they come to us and consult with us and we give them their money. For instance, the Bureau of Quantico.

Commander GRIFFIN. We control the money and the personnel control lies.

Admiral MOFFETT. He is no more separate from us than we are from each other; else and, as I say, they are furnished everything by

ry DENBY. Except personnel.

l MOFFETT. I mean their ordnance, for instance, is furnished by the Navy, and we furnish everything for aviation.

l LLEY. Then they have an office which handles their aviation and they handle their supplies?

l MOFFETT. Their aviation is almost entirely personnel.

l LLEY. You furnish all the motors?

l MOFFETT. Yes. We furnish them with machines, and we furnish them with them. Colonel Turner is not only near to us but he is with us constantly, and he is as much a part of our bureau as the others.

l LLEY. But you do not pay any of the expenses of the Marine Corps except for the material?

l MOFFETT. We pay for all the material, all the gasoline, and all the upkeep.

l RINES. You supervise the administration of it?

l MOFFETT. Yes, sir.

l RINES. But you do not supervise the personnel?

l MOFFETT. No, sir. For instance, take Quantico; we pay for Quantico—that is, the extension of Quantico Field—we pay for the extension. We pay for the improvement of the field, and all of the expenses that.

l RINES. What do they pay for?

l MOFFETT. I do not think they pay anything except the personnel.

l RINES. Everything but the personnel is paid for by you and the Navy, is it?

l MOFFETT. Yes, sir.

l LLEY. Who is your immediate superior in the Navy?

l MOFFETT. The Secretary.

l LLEY. He is the last one, but who is the next one above him?

l MOFFETT. The next one above me is the Chief of Operations.

l LLEY. He controls the fleet and all of these various activities?

l MOFFETT. Yes, sir.

l LLEY. And tells you what he wants you to do in aviation and the fleet?

l MOFFETT. Yes, sir; but we consult together. We get the orders and consult with him; we make suggestions to him.

l LLEY. But practically it goes that way—the suggestions come from you?

l MOFFETT. Yes, sir.

l RINES. They are only suggestions until he approves them?

l MOFFETT. Yes, sir.

l LLEY. Theoretically he tells you what he wants you to do and, of course, he is subject to the orders of the Secretary of the Navy.

l MOFFETT. Yes, sir.

ry DENBY. Any differences would be settled by the Secretary of the Navy.

l LLEY. I was endeavoring to get the status of this new bureau.

ry DENBY. It is absolutely like the other bureaus.

AIRPLANES FOR SHORE STATIONS.

Mr. KELLEY. Is that all?

Admiral MOFFETT. No; there are the shore stations.

Mr. KELLEY. You are still on new constructions, are you?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What do you say this is?

Admiral MOFFETT. These are the shore stations at Pearl Coco Solo, and so on.

Mr. KELLEY. What are these—buildings?

Admiral MOFFETT. No; these are planes.

Mr. KELLEY. For those places?

Admiral MOFFETT. Yes; torpedo planes.

Mr. KELLEY. Some more planes?

Admiral MOFFETT. Yes, sir; on shore. We have only those afloat.

Mr. KELLEY. What is the sum total?

Admiral MOFFETT. \$50,000 apiece.

Mr. KELLEY. How many of them are there?

Admiral MOFFETT. There are 30, the total being \$1,500,000.

Mr. KELLEY. Thirty shore planes?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And they are to be distributed among various stations?

Admiral MOFFETT. Yes. They are estimated for Pearl Coco Solo, the Panama Canal, and Guam.

Mr. KELLEY. And seven or eight at each place?

Admiral MOFFETT. Eighteen at the first place, eight at and—

Mr. KELLEY (interposing). What sort of planes?

Admiral MOFFETT. There are two kinds or varieties. We make small and as light as possible, but such that so that it can be carried on board ship, and they have to operate with a tender. The latter is very much fuller; it has greater performance; its altitude is higher. It is a heavier plane, weighing about twice as much. There are two distinct types.

Mr. KELLEY. What business have you with air?

Admiral MOFFETT. We have a great deal.

Mr. KELLEY. I thought that was all the Army work, to take of the shore?

Admiral MOFFETT. They do take care of the shore, but I think they are fitted for the offshore work.

Mr. KELLEY. We are getting all piled up with work being carried on by two or three different service.

Admiral MOFFETT. I do not believe they are piling up on us. I do not think the Army should be doing any offshore work at all.

Mr. KELLEY. Is this offshore work?

Admiral MOFFETT. Yes, sir. These bomb land planes to sea, they may do that if a destroyer every 10 miles. In peace time they use a land plane over the water, but personally I think it is better to have a bomb plane.

Mr. KELLEY (interposing). You think it is better to have a bomb plane than a land plane?

iral MOFFETT. Yes, sir.

KELLEY. If the Navy takes care of that, what would the Army be doing?

iral MOFFETT. They would have to look after the rest of it; in my personal opinion. Another part would be scouting offshore.

KELLEY. Who has the legal control of the coast defenses?

iral MOFFETT. I think it is very much involved. The regulation is that the predominant force under the Army they will control; under the Navy the Navy will control; it depends on the particular circumstances.

BYRNES. Does not the Army operate offshore?

iral MOFFETT. No, sir.

BYRNES. If the Army operated offshore with land planes, it would be the result to the planes if they came down in the water?

iral MOFFETT. They would be lost.

BYRNES. Therefore, only seaplanes should be operated anywhere offshore?

iral MOFFETT. Yes, sir. In time of war, I think that the land planes could do some work 50 miles off, but I think anything farther than that would be exceptional. The present arrangements under the regulations of the joint board are that the Navy is supposed to do the locating and scouting.

BYRNES. You have a joint board?

iral MOFFETT. Yes, sir; a Joint Board, and the scouting for the Army would be a function of the Navy.

BYRNES. What do they say is the function of the Army in connection to the coast defenses as the enemy approaches the shore?

iral MOFFETT. I think they would use land planes if they came close enough. I think that any over-the-water work should be done by seaplanes, as far as you possibly can.

KELLEY. How many airplanes has the Army at Coco Solo?

iral MOFFETT. I do not know. I think they have a few more than we have. They use land planes. Those land planes they use primarily over the land. Our force goes over the water.

KELLEY. But it is their idea that they can go out and scout at long distance?

iral MOFFETT. I do not think so.

KELLEY. If they can fly a thousand miles over the land, why do not they fly over the water?

iral MOFFETT. Because if they fly over the water and the engine stops, they must come down.

KELLEY. The same is true if they are flying over the land?

iral MOFFETT. They are trying now to get these landing strips so that they can fly safely over the land.

KELLEY. You want \$1,500,000 worth of airplanes for Coco Solo, Hawaii, and Guam?

iral MOFFETT. Yes, sir.

KELLEY. How much at Guam?

iral MOFFETT. \$300,000.

Secretary DENBY. They are perfectly legitimate under the treaty.

KELLEY. What else do you want?

Admiral MOFFETT. The main thing is to get the \$1 you give us the total—

Mr. KELLEY (interposing). But we are interested in Admiral MOFFETT. They are smaller ships.

ESTIMATE FOR LIGHTER-THAN-AIR CRAFT.

Mr. KELLEY. What is the rest of the new construction?

Admiral MOFFETT. A total of \$612,000 for lighter-than-air.

Mr. KELLEY. What is that for?

Admiral MOFFETT. One is a nonrigid.

Mr. KELLEY. How many of those?

Admiral MOFFETT. One.

Mr. KELLEY. How many lighter-than-air craft?

Admiral MOFFETT. Then we have five small nonrigid with the type of balloons they have.

LIGHTER-THAN-AIR CRAFT BEING BUILT BY GERMANY FOR THE NAVY.

Mr. BYRNES. Have we any ship being built abroad at this

Admiral MOFFETT. No, sir; we have none. The way—it has not been started. We are entitled to the Germans, under the reparation, two. There is a great deal of opposition as to this on the part of our friends after a great deal of negotiation they have agreed to a large rigid. We tried to get one very up to date of 100,000 meters capacity, but we finally compromised with 70,000 cubic meters' capacity, which is a little smaller. There was a dispute in regard to it, but finally we got the Ambassadors to agree to let us have this one. They say as to how much the Germans should get credit for 4,000,000 marks. It looks as though they would give 3,000,000 to 3,300,000 gold marks.

NOTE.—1 cubic meter equals 35.32 cubic feet.

Mr. BYRNES. Is it completed?

Admiral MOFFETT. No, sir.

Secretary DENBY. It has not been touched.

Mr. BYRNES. If built, who will supervise its construction?

Admiral MOFFETT. We will expect to learn what they can do.

Secretary DENBY. The Germans will build it and we will have the plans.

Mr. BYRNES. With our experience of having built one in Britain and one in Italy, I should think that we can handle it.

Secretary DENBY. We get it free, if built in Germany.

Mr. BYRNES. If it is going to break up in the air, it is up in the other—

Admiral MOFFETT (interposing). The one built in Germany contains the very last word in rigid construction.

Mr. BYRNES. You thought that about the ship that was built in England.

Secretary DENBY. This matter is not yet settled. The Navy Department is handling it.

ENCH. Are we not entitled to money in lieu of the ship?
LLEY. If we are, I think we better take the money.
; back to this \$612,000, what is the next?

KITE BALLOONS.

l MOFFETT. For the kite balloons used on ship for spotting.
LLEY. I can understand the value of them. How many kite

l MOFFETT. Twenty-seven.

LLEY. How much do they cost?

l MOFFETT. \$8,000 apiece.

LLEY. Twenty-seven at \$8,000 apiece, \$216,000. What else there?

TOWING MACHINES.

l MOFFETT. Five of the nonrigid towing machines.

LLEY. They are hitched to the ship?

l MOFFETT. Yes, sir; and in case they get adrift they can of themselves.

LLEY. How much do they cost?

l MOFFETT. \$40,000 apiece.

LLEY. They cost very much more than the heavier-than-air

l MOFFETT. They have entirely different engines.

LLEY. You would not want those things in time of peace?

l MOFFETT. Unless you train in time of peace, you will not n time of war.

LLEY. It does not take much training in a thing that is a vessel?

l MOFFETT. Yes, sir; it does. A great many people do not on them at all.

LLEY. What is the rest?

l MOFFETT. Three training balloons, \$21,000 total.

LLEY. What is the rest?

l MOFFETT. That is all.

LLEY. What was the first one?

l MOFFETT. \$175,000. That totals \$612,000.

LLEY. How much of that do you want this year?

l MOFFETT. We would like all of that.

LLEY. It will take about all the helium you have to fill the

We could let the \$175,000, at least, go. You have 27 nes, five nonrigid and three balloons. You had eight in air in the original. We could strike out some of those?

l MOFFETT. There is something I want to tell you. This as gotten up in a hurry and sent in and the total was only

LLEY. You have increased it one?

MOFFETT. Yes, sir; but the total is the same.

LLEY. This carries \$612,000. We have carried the eight fore in the other item, so we can take them out here?

ider GRIFFIN. Yes, sir; we estimate \$120,000 in the other ou can take \$120,000 out.

MOFFETT. That will make \$492,000.

Mr. KELLEY. You are getting into a lot of things that I suppose we were running into, if you are running stores.

Admiral MOFFETT. It is not that.

Mr. KELLEY. I thought you said that when people want to buy some little thing, they could secure it without having to go to the Navy Department.

Admiral MOFFETT. Here is the situation: Somebody wants a sextant, and if they have it in stock, they do not go to the Navy Department for it. They have a reasonable amount of those things on hand.

Mr. BYRNES. What does the stock consist of?

Admiral MOFFETT. This type of equipment, or navigation instrument.

Mr. KELLEY. It is a little reserve supply.

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Have you ever done this before?

Admiral MOFFETT. We have always done it.

Mr. KELLEY. You have always carried it over there?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Why does it come in here in connection with the expenses? Will not the Naval Observatory be able to get what they need for this purpose?

Commander GRIFFIN. No, sir. We have always reserved money for this purpose. The reason why it is carried here is that \$30,000 is spread throughout the rest of the bill, and we do not see what it is for.

Mr. FRENCH. Where was that item carried before the Aeronautics was organized?

Commander GRIFFIN. We always had an aviation appropriation there. Before this bureau was organized, they were carried under this subhead, and, in addition, an allotment for mental work, and the thing became confusing.

Mr. KELLEY. Is this item you are carrying here for a servatory for repairing your instruments?

Commander GRIFFIN. It is for the purchase of new ones.

Mr. KELLEY. You would purchase your own instruments, would you not?

Commander GRIFFIN. No, sir; they purchase them.

Mr. KELLEY. When the Naval Observatory commissions are given what they want, you should not be giving money for them.

Commander GRIFFIN. They buy instruments for the Navy. You can not encroach much upon this appropriation. We are always in a tight situation with it. This work has always been done on an allotment of money from the Aeronautics or by allotment from the Secretary or the aviation appropriation.

Mr. KELLEY. This is for payment for the maintenance of the instruments?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. I would not put it in this way. It is the way it should be done.

Admiral MOFFETT. I think they try to maintain their own.

Mr. KELLEY. They make repairs on machines.

Commander GRIFFIN. Yes, sir.

: KELLEY. If it is for purchase and repairs, it should be put that way. You have to go over there and get some instruments fixed or regulated?

Miral MOFFETT. Yes, sir; we have an officer over there who is in close touch with us.

TENANCE AND OPERATION OF PLANES IN STATIONS AND THE FLEETS.

: KELLEY. For maintenance and operation of helium plant, air guns, fleet activities, aircraft factory, testing laboratories, spares, engines, and hulls, flying, overhauling, and repairing of aircraft and does you estimate what?

Miral MOFFETT. \$6,618,100. We have that in detail by stations.

: KELLEY. What are the details on that?

Miral MOFFETT. The money requested under this subhead is in excess of the appropriations for previous years. There was approved \$3,800,007 in 1920, \$6,044,600 in 1921, and \$4,534,181 in 1922. A comparison with previous appropriations is deceptive, because maintenance charges for each year have been greatly in excess of the appropriations. In other words, that means taking funds from other subheads.

: KELLEY. You had authority to use it as one sum, and as you did elsewhere you supplemented this fund?

Miral MOFFETT. Yes, sir.

: KELLEY. What are the items?

Miral MOFFETT. For fleet aviation, \$450,000 on the Atlantic, and for fleet aviation on the Pacific, \$450,000. This estimate was made up some time ago, and I believe that more will be required.

: KELLEY. What do you propose to do in connection with fleet aviation on the Atlantic that will cost \$450,000?

Miral MOFFETT. We allot that to the fleet every month. It goes for gasoline, oil, etc., and covers requisitions for things that they get. For instance, if they want some material that comes from the aircraft factory, it is furnished on requisition. As a matter of fact, the aircraft factory is very largely a big storehouse for aviation supplies. Stores that are gotten for them outside of that are charged to their allotment.

: KELLEY. Does this include expenses of ships?

Miral MOFFETT. No, sir; not for the running of ships, but for the running of the planes themselves and for the replacement of any material that is worn out in use, or of anything that is smashed up, or anything of that kind.

: KELLEY. It does not have anything to do with putting new equipment on ships, but it is just for the maintenance of planes and the purchase of such gasoline, oil, and other material as is necessary to successfully operate them?

Miral MOFFETT. Yes, sir.

: KELLEY. You have not much aviation in connection with the fleet, have you?

Miral MOFFETT. We have a good deal.

: KELLEY. How many planes are there with the Atlantic Fleet?

Miral MOFFETT. This is based upon the actual expenditures in the past.

Mr. KELLEY. What do you have?

Admiral MOFFETT. We have the *Wright*, which carries we have a torpedo squadron with 12 planes; and we have that goes with the mother ship.

Mr. KELLEY. This is a large item to be submitted will Do you say you have spent \$450,000 for upkeep of the Atlantic?

Commander GRIFFIN. We have not spent that much. It has been increased because our fleet aviation is as the expense for fleet aviation goes up the expenditure for stations is decreased. We know that it will cost us that for maintenance, or at least this amount. We know that we have raised that figure, but we try to keep it down as low as possible.

Admiral MOFFETT. We have the *Wright* in command.

Mr. KELLEY. How many planes are on the *Wright*?

Admiral MOFFETT. We have with the Atlantic Fleet 6 (scouting sea planes), 2 NC (scouting sea planes), 11 to and 6 kite balloons. These craft are based on the *Wright*.

Mr. KELLEY. Do you know how much you have spent of aviation in connection with the Atlantic Fleet this year?

Admiral MOFFETT. I can find out. I know that we have spent the allotment to the Atlantic Fleet. The old appropriation was \$450,000 and I know that we wrote a letter to all of the stations, in the Atlantic Fleet, cutting the allotments.

Mr. KELLEY. How much was the allotment?

Admiral MOFFETT. I do not remember the amount. We wrote a letter saying that when the allotment ran out they should let them did stop. We did give the Atlantic Fleet more.

Mr. KELLEY. Can you estimate how much the expense was?

Commander GRIFFIN. Those figures you have include the figures that we had last year, and, incidentally, they are based on the fact that the fleet made no cruise to Panama. These figures have shown only a part of the charges. We will have to include data in the record.

Expenditures of air squadrons, Atlantic Fleet, six months, July 1 to Dec 31, 1921.

Public bills:

Shawmut, first quarter	\$19,000.00
Shawmut, second quarter	21,000.00

Total

Naval supply account, material:

Shawmut, first quarter	\$23,767.08
Shawmut, second quarter	4,476.47
Wright, second quarter (estimated)	18,000.00

Total

Appropriation purchase account, material issued on shipping orders:

Spare parts	\$27,250.00
Raw material	192.00
Accessories	1,070.00
Propellers	645.00

Total

Total expenditure for six months

Rate of expenditure per year

TE.—During this period the activities of the air squadrons, Atlantic Fleet, much reduced, due to the limited allotments from the Bureau of Aeronautics the general inactivity of the Atlantic Fleet. The *Shairmut* (tender) was at the Philadelphia Navy Yard from October 7 to January 4. Present allotments available supply account material are \$12,500 for March and \$15,000 for April, expenditures on public bills and for shipments of appropriation purchase material will also increase. In 1923 it is expected to considerably augment the fleet air forces by installing aircraft on surface vessels. Maintenance expenses will rise accordingly.

Mr. KELLEY. Under this division of the appropriation, do you carry expenditures?

Commander GRIFFIN. Only for equipment. Under the present condition, everything for the maintenance of aviation is carried under subhead. It includes keeping the things as they are.

Mr. KELLEY. This \$450,000 for each fleet is based upon the plans you make for next year and not upon your experience of last year?

Commander GRIFFIN. It was done this way: This figure we had last year was adjusted to the operations for next year. If there is any criticism to be made of it, it is that we have asked for too small a portion for the fleet.

Mr. KELLEY. That depends upon how much you will do.

Commander GRIFFIN. Our endeavor is to do more in connection with the fleet.

Admiral MOFFETT. What we have on the fleet will not affect the bill, because we are so far behind.

Mr. KELLEY. When you estimate the sum of \$1,000,000 for rather ill purposes you ought to have it more in detail.

Admiral MOFFETT. We will supply that for the record.

Details of estimate for item "fleet aviation."

	Gasoline and oil.	Power plant and accessories.	Structural and accessories.	Total.
Atlantic Fleet.....	\$230,000	\$110,000	\$110,000	\$450,000
Pacific Fleet.....	230,000	110,000	110,000	450,000

MAINTENANCE AND OPERATION OF SHORE STATIONS.

Mr. KELLEY. The next is for shore stations and aviation facilities.

Admiral MOFFETT. For shore stations, the estimate is \$2,646,000.

Mr. KELLEY. Where will you spend that sum, and in what amounts?

Admiral MOFFETT. At Hampton Roads, \$385,000; at Pensacola, \$90,000; at San Diego, \$450,000; at Anacostia, \$158,000; at Coco, \$160,000; at Guam, \$180,000; at Pearl Harbor, \$80,000; at San Antonio, \$128,000; at Port Au Prince, \$55,000; at San Domingo, \$100,000; at Cape May, \$25,000. At Cape May we can cut off something. It should not cost more than the other.

Mr. KELLEY. You would take off \$20,000 there.

Admiral MOFFETT. We can also take off something from Paris Island. If we do not use this money at one place we can use it at another. I will tell you about Cape May, Chatham, and Rockaway.

Mr. KELLEY. If you have \$5,000 for Cape May, \$5,000 for Paris Island, and \$5,000 for Rockaway will make the total how much?

Admiral MOFFETT. You can reduce Cape May by Paris Island by \$5,000.

Mr. KELLEY. That leaves \$2,621,000?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Let us see if we can do something with amounts, so as to make them correspond with the What is the occasion for spending \$385,000 at H. p

Admiral MOFFETT. That is a main operating air coast.

Mr. KELLEY. What expenses are included in the item?

Admiral MOFFETT. I will have to supply the

Commander GRIFFIN. It includes every expense of stores, repairs to buildings, repairs to plants, every other expense except new construction. If we station it would not come out of this, and the planes would not be included, but it includes ever of maintenance of the planes and stations.

Admiral MOFFETT. It includes water, heat, and light.

Mr. KELLEY. You do not expect to get \$385,000 Roads without submitting any details, do you?

Admiral MOFFETT. We can give that in detail, but I data with me.

Mr. KELLEY. You must have some general

Admiral MOFFETT. We can submit that infor

Commander GRIFFIN. Those details will not be may think they will be.

Mr. KELLEY. How much will be for planes buildings?

Admiral MOFFETT. We can get all of that infor

Mr. KELLEY. Can you tell how much of it engines?

Admiral MOFFETT. I can not give you any detailed now.

Mr. KELLEY. Then you are not in a position to

Admiral MOFFETT. This is based on the experi

Commander GRIFFIN. In order to give a really we would have to go back to the stations and it.

Mr. KELLEY. How did you make up this \$5,000?

Commander GRIFFIN. By taking the to in 1922.

Mr. BYRNES. How much did you spend in 19

Commander GRIFFIN. We have not that fig Roads under this figure has not got its pro Atlantic fleet was boosted. We estimate tl maintain aviation under existing conditions a right now, and that amount is around \$6,000,000.

Mr. BYRNES. Will you put in the record what you have spent for the first six months or you estimate you will spend for the entire year?

mander GRIFFIN. I will include that in the record.

—On Dec. 21, 1921. \$2,756,536.32 had been spent and obligated for
ance.

BYRNES. That is the basis upon which you say you made this
e?

iral MOFFETT. We can furnish that.

BYRNES. You have nothing to show how much you allotted
station this year?

iral MOFFETT. Yes, sir. The payments are made to the stations
ways, one by allotment of the money that they spend at the
, and the other is by requisitions that come to the bureau. In
) give the complete figure we would have to have both
nts.

mander GRIFFIN. We are allotting about \$12,000 per month
pton Roads.

KELLEY. For what?

mander GRIFFIN. For the expenses that they pay at the station.

KELLEY. \$12,000 per month would be only \$144,000.

mander GRIFFIN. The rest of the expense of the station is
p by requisitions that they put into the bureau for material.

KELLEY. These figures that the admiral has given, aggregat-
\$46,000, represent the expenditures on the stations and on the
ent?

mander GRIFFIN. Yes, sir; on the stations and the equipment,
is not to add anything to it; it is to keep it in its existing
on.

KELLEY. In the next classification below you have, "Naval
factory, overhaul of planes issued for service when returned
ations."

iral MOFFETT. That means planes used in the service.

KELLEY. That amount of \$385,000 at Hampton Roads is for
ntenance of buildings, grounds, and equipment?

iral MOFFETT. Yes, sir; including water, heat, and light.

KELLEY. It includes water, heat, light, and power, and the re-
d upkeep of planes?

iral MOFFETT. Yes, sir; and some civilian labor, but not much.

KELLEY. You said you had been allocating \$12,000 a month
pton Roads; that would make \$144,000 a year, while you are
for \$385,000.

mander GRIFFIN. That is not all of their expense; that is
ng less than half their expense. We do that so they can
mething with which to pay their gas bills and their current
s. Then when there are special things they want, like special
equipment, we consider every request for such equipment
ely, and if the request is approved the bureau pays the bill.
m of \$12,000 is placed there and is spent at the discretion
tation; there is a great deal more spent, but whatever is spent
ion to that must meet the approval of the bureau.

iral MOFFETT. In 1921 we spent \$6,395,983. I knew there
be trouble about this and I want to show every expenditure

and how much we knew we had spent by past experience. As we did spend in 1921 \$6,395,983.

Commander GRIFFIN. We know what we have spent, but fiscal year in which an account has been made is the fiscal year. Our cost was over \$6,000,000 for that year, and the chief difference between that year and the coming year, 1923, is that during that year we used an enormous amount of surplus stock which we did not use in 1923.

Mr. KELLEY. I am sorry you do not know more about this.

Admiral MOFFETT. We will find out; of course, we could check everything up here, but we can prove it all right, because we know what we spent, and we will go and find it and we will show it.

Mr. KELLEY. Let us take Pensacola. Do you know any other navy yard at Pensacola than you do about Hampton Roads?

Admiral MOFFETT. I am afraid I do not know very much. We took Pensacola over as a navy yard, and we do our training there, not all of it, but most of the training of officers, warrant officers, and enlisted men, is done there, and we have carried a larger number of men there than anywhere else. I do not know how that was, but it is probably that was originally because it was a navy yard and we used more civilian labor than anywhere else. A good deal of overhaul work on engines and planes is done by the civil force, that is one of the reasons why the expenditure there is large. At San Diego it is not nearly as much because we have very little civil labor at San Diego. San Diego grew up from nothing, there not as much work is done by the civil force as is done at other places by people themselves.

Mr. BYRNES. Why can you not have more of the work at San Diego done by the people themselves, or is it because they do not like it?

Admiral MOFFETT. Well, I will tell you why, and there are several reasons. The principal reason is that when we try to get more enlisted men from Navigation, they will not give us them. As a matter of fact, I think in aviation, except for purely training, the work should be done by enlisted men. I think it ought to be like a ship, it ought to have its crew and all of its overhaul work ought to be done by the men who are directly connected with the plane, especially as the civil people go on to do it. So as to aviation we really ought to come to the point where we begin to use enlisted men and very few civil people at any time.

Mr. KELLEY. Will you please put in the record a statement of the distribution of the amounts you have asked for at the various shore stations and showing the chief purpose for which the money is spent, for example, so much for repairs of machines, so much for repairs to buildings, so much for the keep of the grounds, so much for heat, light, and so on. I think other general headings as can be furnished from the records.

Admiral MOFFETT. Yes, sir.

etails of maintenance and operation of shore stations and facilities.

Station.	Class 0, clerical force attendants, miscel- laneous labor, and supplies.	Class 1, leave and holiday.	Class 2, power plant, grounds, water- front, communi- cations, fire pro- tection.	Class 3, repairs to build- ings and structures.	Class 4, miscel- laneous equip- ment.	Class 5, repairs plant ap- pliances.
on Roads.....	\$57,750	\$15,400	\$19,200	\$19,200	\$9,240	\$3,850
la.....	144,000	38,400	48,000	48,000	23,040	9,600
go.....	67,500	18,000	22,500	22,500	10,800	4,500
la.....	22,000	6,400	8,000	8,000	3,840	1,600
lo.....	24,000	6,400	8,000	8,000	3,840	1,600
.....	27,000	7,200	9,000	9,000	4,320	1,800
arbor.....	12,000	3,200	4,000	4,000	1,920	800
o.....	19,200	5,120	6,400	6,400	3,072	1,280
Prince.....	15,000		5,000		2,000	
omingo.....	13,000		4,000		2,000	
ay.....			2,000	3,000		
n.....			2,000	3,000		
ay.....			2,000	3,000		
rst.....	78,000	13,000	25,800	19,500	13,000	13,500

Station.	Class 6, repairs to ma- chinery and machine tools.	Class 7, portable power tools.	Class 8, loose and hand tools.	Class 9, super- vision.	Title V, repairs and op- erating expenses of air- craft, in- cluding gasoline and oil.	Total.
on Roads.....	\$2,695	\$1,155	\$2,310	\$7,700	\$246,400	\$385,000
la.....	6,720	2,880	5,760	19,200	614,400	960,000
go.....	3,150	1,350	2,700	9,000	288,000	450,000
la.....	1,120	480	960	3,200	102,400	158,000
lo.....	1,120	480	960	3,200	102,400	160,000
.....	1,280	540	1,080	3,600	115,200	180,000
arbor.....	560	240	480	1,600	51,200	80,000
o.....	896	374	748	2,560	81,950	128,000
Prince.....					33,000	55,000
omingo.....					31,000	50,000
ay.....						5,000
n.....						5,000
ay.....						5,000
t.....					6,000	6,000
rst.....	2,600	3,600	13,400	2,600		185,000

OPERATION AND MAINTENANCE OF HELIUM PLANT.

KELLEY. We will now go ahead with the aviation activities. the helium plant you are asking \$250,000. Tell us about that.

Admiral MOFFETT. Last year we were not limited; we put it in a subhead, but when we found the Army had \$250,000 we then, since we had promised to go 50-50, that we would give \$250,000.

KELLEY. Where is this plant located?

Admiral MOFFETT. Near Fort Worth, Tex.

KELLEY. What is the money to be used for?

Admiral MOFFETT. For the production of helium.

KELLEY. How many employees have you there?

Admiral MOFFETT. I do not know but I can find that out. The agreement as to helium is this: We have a contract with the Linde

Mr. KELLEY. \$31,500 from each fund?

Mr. MOORE. No; from both funds.

Mr. KELLEY. So that the bulk of this will be for t
10,000,000 feet of helium?

Mr. MOORE. I am giving the figures recommended by
board, made up of members of the Army, the Navy, and
of Mines. Seventy-eight thousand dollars out of the t
be for research.

Admiral MOFFETT. Wait a minute; I have it here. I
they only expect to get \$500,000, and they estimate
work and research work \$26,500. I am taking the
helium board.

Mr. MOORE. Based on a total appropriation of \$500,000 i
just what you say.

Secretary DENBY. This question of helium has
acutely throughout the entire Government service; t u
tion of policy to be adopted. It has been up
Department, before the Navy Department, D
Department. Fort Worth has been closed down p
has it not?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. What does it cost to keep it g

Admiral MOFFETT. I think it costs us now about 7.12 11

Mr. KELLEY. They are asking \$800,000 for Fort
year, \$400,000 from the Navy and \$400,000 from the A

Secretary DENBY. That is the joint board

Admiral MOFFETT. No; we just put in an

Secretary DENBY. Let me follow this up. Are
helium now?

Admiral MOFFETT. No.

Secretary DENBY. You filled one ship and br
ington?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. That is the only helium you have

Admiral MOFFETT. Yes, sir.

Secretary DENBY. The whole helium question is one
entire Government?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. The time will undoubtedly c
tary services will be prevented from usin any
and since it is so acute—this helium matter
and others—I am just wondering whether it
to lay this aside until such time as we can
regard to helium. At the present time the
is discussing reservations in different parts or
to get helium, the production of gas, and all tl

Mr. MOORE. I am in charge of that work for t
and for the Secretary of the Interior, and that
here; but all of that program is in add to t
Army and Navy, and it does not take into c
the items the Army and the Navy have been
words, the program which will ultimately to
addition to the money asked by the Army also y.

Secretary DENBY. And the money asked by the Army and the Navy is for the one plant at Fort Worth, Tex.?

Mr. MOORE. Yes, sir. Therefore, if that program should fall through and these items were not passed, there would be no money left, and we would be worse off than we were last year, instead of better.

Secretary DENBY. What I mean is, what particular need have we for helium right now, and when are you going to be able to use it in lighter balloons?

Mr. KELLEY. The admiral says they would lose it all in 100 days if they put it in bags, and there is no way of plugging it up in the meantime or recovering it.

Admiral MOFFETT. What we have we keep in flasks.

Mr. KELLEY. Mr. Moore says we can make 10,000,000 feet for that amount of money and that we have storage capacity for about that amount.

Mr. MOORE. We have storage capacity for about 18,000,000 cubic feet.

Mr. KELLEY. So we could run the plant down there for nearly two years and not waste it, but we could store it up?

Admiral MOFFETT. And he says that this field is rapidly becoming depleted.

Mr. KELLEY. So probably we had better go ahead with it?

Admiral MOFFETT. We have paid to the people who own this field \$30,000 for the right to take the gas out of it.

Mr. KELLEY. I do not know whether the helium is going to be depleted when you get it and store it, because I do not know whether lighter-than-air business is going to materialize. However, we have a generous frame of mind to-day, and you want \$400,000 instead of \$250,000?

Admiral MOFFETT. I think it ought to be raised, but we will have to take it off of some other place.

Mr. KELLEY. I told Mr. Anthony, in charge of the Army bill, that he could do what he did, so if the Army bill grants \$400,000 I am fully committed to that.

COST OF MAINTAINING LAKEHURST.

Admiral MOFFETT. We had better take something off of Lakehurst.

Mr. KELLEY. We can take out all of Lakehurst, can we not?

Admiral MOFFETT. No. I would like to go over that some more if we can reduce the estimate.

Mr. KELLEY. Why can you not close down Lakehurst?

Admiral MOFFETT. Well, it is closed down now as a flying station; I think we can reduce the amount for Lakehurst.

Mr. KELLEY. Suppose we cut it out entirely?

Admiral MOFFETT. You will have to allow enough for Lakehurst.

Mr. KELLEY. How much?

Admiral MOFFETT. I do not know without looking into it, and I will put it down as low as I can.

Commander GRIFFIN. I should take it off of the miscellaneous total.

Admiral MOFFETT. I might take off \$200,000, sir; I think we can live along with \$135,000.

Mr. KELLEY. How much did you spend at Lakehurst this year, as I understand it, you had it closed down all the time?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And simply had watchmen there?

Admiral MOFFETT. No; there were people there from the outside contractors were working there, and we are doing something; we are building the mooring mast and doing other work. The place is expensive to run because its different buildings are scattered. The power plant had to be a long ways from the hangar.

Mr. KELLEY. You think you can get along with \$135,000?

Admiral MOFFETT. I would like to look into that before you do but, roughly, I think we can take off \$150,000 and put it on the helicopter.

Mr. KELLEY. We have given you \$400,000 on the helium.

Admiral MOFFETT. Well, we will have to take it off of some place or it will change your total—\$17,000,000.

Mr. KELLEY. I have my eye on another item here.

Mr. GRIFFIN. That miscellaneous item was put in here for just very thing—that is, it was put in there to take charge of just things as these, which always occur.

Mr. KELLEY. Suppose we make the amount for Lakehurst \$150,000, will that be all right?

Commander GRIFFIN. No; that will not run us.

Mr. KELLEY. What will run you?

Commander GRIFFIN. \$335,000.

Admiral MOFFETT. Take off \$150,000 and put it on the helicopter that will make it \$185,000, but I do not know how we will get on that.

NEWPORT EXPERIMENTAL STATION.

Mr. KELLEY. You have an item of \$6,000 for Newport, R. I. is up there?

Admiral MOFFETT. We carry on experiments with torpedoes on a little island up there. The torpedoes are made at Newport, and we have three planes there and we experiment with the torpedoes at the torpedo station.

Mr. KELLEY. The reason you carry on your torpedo experiments there is because it is more economical and is near the torpedo station.

Admiral MOFFETT. Yes, sir.

COST OF MAINTAINING NAVAL AIRCRAFT FACTORY.

Mr. KELLEY. You have an item of \$400,000 for the naval aircraft factory?

Admiral MOFFETT. That looks big.

Mr. KELLEY. Well, tell us about it.

Admiral MOFFETT. Well, I will have to go back and get more details about that the same as I will have to do with reference to the others. I can give it to you in general but I can not give you details.

Commander LAND. I think I can give you some of the details.

Admiral MOFFETT. I do not think you can give any more than I can; but go ahead.

Commander LAND. It is the main storehouse for the whole Navy of Aeronautics, and all of the equipment and supplies come from here. It is the outfitting point.

KELLEY. Is this amount for wages?

Commander LAND. For wages in the handling of shipments; yes—a part of it.

KELLEY. How many men have you there?

Commander LAND. The number fluctuates; but we have there now 500 to 600 men on production. They are engaged in the store-in manufacturing spare parts and in manufacturing experimental planes, in construction the *ZR-1*, the fabrication of the *ial*, testing out planes of an experimental nature, they are engaged in overhauling the planes sent in from all of the fields and testing stations; they are also engaged in testing such things as engines, making engine tests, testing equipment of all kinds and

It is generally a large experimental station in addition to a tremendous storehouse for the storing of all material. How-t is a very small station if you compare it with a navy yard.

KELLEY. Does this include the pay of those 500 men?

Commander LAND. Oh, yes, sir; those who work on maintenance.

KELLEY. How many are paid out of this fund?

Commander LAND. All of the mechanical employees are paid out of this fund.

KELLEY. How many by number?

Commander LAND. It is a fluctuating proposition, but I said between 500 and 600 men on production.

Naval Officer MOFFETT. We have had at both places 1,300 men.

KELLEY. \$400,000 will not pay 500 men.

Naval Officer MOFFETT. No; but we allot work. For instance, take the work on the *Z. R. 1*; that will be charged to the *Z. R. 1*.

It is probably for the maintenance of the aircraft factory, it is for the heat, light, and power.

KELLEY. These men are there and are working on some job for which a special appropriation has been made?

Naval Officer MOFFETT. Yes, sir.

KELLEY. And paid out of that appropriation?

Naval Officer MOFFETT. Yes, sir.

KELLEY. What is this \$400,000 for?

Naval Officer MOFFETT. The actual running of the factory itself.

KELLEY. You mean the watchmen?

Naval Officer MOFFETT. The watchmen and the firemen who furnish the light. The light is charged to the factory and any water is charged to the factory.

Commander GRIFFIN. And the upkeep of the buildings.

KELLEY. Please put in the record a table of this \$400,000 discharging the charge the very best you can by purposes for which the money is spent. It does not include much for the payment of the necessities?

DETAILS OF MAINTENANCE OF NAVAL AIRCRAFT FACTORY.

I. Naval aircraft factory.

Water, light, heat (labor and material)-----	\$328, 000
Upkeep of naval aircraft factory plant, repair to buildings, grounds, fire protection, etc-----	72, 000
Total, Item I-----	400, 000

II.—Overhaul of planes before issue to service and when returned from service, etc.

	Labor.	Material.	To
(1) Hulls.....	\$569,000	\$233,000	"
Engine.....	252,000	97,000	
Storekeeping.....	177,000	28,000	
Total.....	998,000	358,000	1,356,000
(2) Seaplane operation at naval aviation field, labor, material, and overhead.....			
(3) Storekeeping expense at naval aviation field for all air stations (excluding naval aviation field) including labor, material, crating, handling, trucking, etc.....			
Total of Item II (1, 2, and 3).....			1,356,000

NOTE ON ITEM II.—Between 250 and 300 planes are overhauled annually at the naval aircraft factory.

NOTE ON ITEM II (3).—There were 3,402 shipments made in the fiscal year 1921. These shipments were made in as large lots as practicable, to save expenses.

Admiral MOFFETT. I have a letter from Lakehurst, which shows detail where they put their money.

Commander LAND. I was covering the aircraft factory as a

AVERAGE COST OF REPAIRING AIRPLANES.

Mr. KELLEY. What is the average cost per annum of repair of a plane? If you had 100 planes to keep up, what would you expect them to cost you?

Commander LAND. Fifty per cent of the original cost.

Mr. KELLEY. What do they cost—\$20,000?

Commander LAND. Yes, sir; somewhere in that neighborhood.

Mr. KELLEY. And you would expect to spend \$10,000 on repair of one?

Commander LAND. Yes, sir.

Mr. KELLEY. That would mean that you would provide for the repair of 150 planes?

Commander LAND. It would depend on how many were operated, of course.

Mr. KELLEY. What is the total number of planes in operation?

Admiral MOFFETT. One hundred and sixty-seven. We have money enough to repair 158.

Commander LAND. It depends a great deal on the number of operating hours.

Mr. KELLEY. It looks as though all the airplanes would be repaired at the Philadelphia Navy Yard.

Mr. FRENCH. It depends on the amount of time that the planes have been operated?

Commander LAND. Yes, sir.

Mr. FRENCH. If you operate it a certain number of hours a day, then it must be overhauled more frequently than if operated a less number of hours a day on alternate days?

Commander LAND. Yes, sir.

Secretary DENBY. Do you bring the planes from the west coast?

Admiral MOFFETT. No, sir.

Secretary DENBY. Where do you get them repaired on the east coast?

lmiral MOFFETT. At San Diego.

. KELLEY. This is a pretty liberal guess?

mander GRIFFIN. It is not a guess at all. We have spent in period this year, which is not a full year by any means, \$1,360,000 more, so that was simply prorated down. It is not a wild guess as to money spent there for that purpose.

. KELLEY. With only 167 planes on both coasts it does not seem that the figure you have given could be right.

mander GRIFFIN. That is the operating complement, the number they are allowed to fly. The total number of planes is much more than 167.

mander ELLYSON. You asked me that question. Mr. Kelley, we have allowed an operating complement of 167. The number of planes actually at the operating stations does not include the naval aircraft factory, the storehouse, or the supply station at Hampton Roads. They come to 484. If you allow an operating complement of four planes, if one is damaged one of the stand-by planes is put in its place and the damaged plane is put in condition.

. KELLEY. That is 484 planes that are in good condition for operation and it is only a question of sending one to the factory to be repaired and taking one out of the stock for the work?

mander ELLYSON. Yes sir.

ITEMS COVERED BY MISCELLANEOUS EXPENSES.

. KELLEY. What is the miscellaneous item of \$500,000?

lmiral MOFFETT. We will have to look that up.

. KELLEY. Your suggestion is to cut that out?

mander GRIFFIN. No, sir. We have inspection offices in the

We have charge of the Philadelphia Navy Yard. We have at many charges, none of them great, which do not appear in the items. Any work we have done at a navy yard for aviation we have to pay for. It is not great at any one yard. If you would take that \$150,000 and put it for Lakehurst, you would have the same exactly right.

. KELLEY. Just make this \$150,000 instead of \$498,000?

mander GRIFFIN. Provided you do not cut Lakehurst. If you do not take the \$150,000 off of Lakehurst you can take the \$150,000 off of miscellaneous.

lmiral MOFFETT. Leave Lakehurst as it was and we will give you more detail; we will give you exactly what we can do, and take \$150,000 off of the miscellaneous.

. KELLEY. Suppose we should take off this \$618,100 off of the miscellaneous; how would that be?

mander GRIFFIN. Then we would have \$300,000 less than it actually cost in 1921. We are using a larger amount of spare materials from the war than next year will be available for that purpose.

. KELLEY. What are the items entering into this miscellaneous?

mander GRIFFIN. Repairs and overhaul, cost of inspection, and unforeseen things that come up.

. KELLEY. You have not any idea that you can get money on your account on such a statement? You have gone into little items of \$100,000 and \$50,000, and then you come along with one grand total

of \$500,000 and call it "miscellaneous." I do not believe that I could ever get money that way.

Commander GRIFFIN. I appreciate the weakness of it.

Mr. KELLEY. While the House, I believe, is very friendly to a tion, still they would want to know where the money was going.

Admiral MOFFETT. We can take that and distribute it. We take off \$150,000, and then we might cut miscellaneous down \$100,000 and distribute it somewhere else.

Mr. KELLEY. What we would like to have you do is to spread \$498,000 over the items which gave you information enough to get the total, in the first place.

Admiral MOFFETT. We will do that.

Details of estimates for item "Miscellaneous."

(a) Maintenance, repair, and operation of aircraft on <i>Langley</i>	\$1
(b) Maintenance and repair of airplane handling facilities on <i>Langley</i>	
(c) Repairs necessitated by storms, fires, floods, etc.....	1
(d) Work for Bureau of Aeronautics performed at navy yards.....	
(e) Cost of aeronautic work incidental to cooperation with other bureaus and other departments.....	
Total.....	4

Secretary DENBY. I should like to point out in connection with all these items that the department itself has already made drastic cuts under the demand for economy through the Bureau of Aeronautics officer—we cut to the bone in many instances. Now, we are bleeding blood. It is hard to reconcile.

Admiral MOFFETT. We will go over all of the data and evaluate each item just as fast as we can. Under new construction we have only asked for \$500,000. We put that in; we did not go into details.

MAINTENANCE, OPERATION, AND REPAIR OF AIRCRAFT, ETC.

Mr. KELLEY. For maintenance, operation, and repair of aircraft testing laboratories, and overhaul plants, you want \$6,618,100.

Admiral MOFFETT. Yes, sir.

EXPERIMENT AND DEVELOPMENT OF WOODEN PARTS, WINGS, ETC.

Mr. KELLEY. For continuing experiments and development of all types of aircraft—you will probably drop that out?

Admiral MOFFETT. I hope not. That is the most important item.

Mr. KELLEY. How much is it?

Admiral MOFFETT. \$1,116,950. That is less than it was before.

Mr. KELLEY. How did you arrive at that figure?

Admiral MOFFETT. Under "Structural cognizance, \$560,000."

Mr. KELLEY. What do you mean by that?

Admiral MOFFETT. I mean the development of the wooden parts of the wings. That used to be under another bureau—now under the material division. Commander Land is the head of the engineering division. It is the construction of the planes, except the engine.

Mr. KELLEY. This will be mostly for the payment of employees.

Admiral MOFFETT. No, sir; there is some contract work.

Mr. KELLEY. That is mostly a question of labor.

LEY. Is this amount for wages?

er LAND. For wages in the handling of shipments; yes—
rt of it.

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er LAND. All of the mechanical employees are paid out

Y. How many by number?

er LAND. It is a fluctuating proposition, but I said be-
d 600 men on production.

MOFFETT. We have had at both places 1,300 men.

r. \$400,000 will not pay 500 men.

MOFFETT. No; but we allot work. For instance, take the
Z. R. 1; that will be charged to the *Z. R. 1*.

Probably for the maintenance of the aircraft factory, it is
light, and power.

LEY. These men are there and are working on some job for
cial appropriation has been made?

MOFFETT. Yes, sir.

LEY. And paid out of that appropriation?

MOFFETT. Yes, sir.

LEY. What is this \$400,000 for?

MOFFETT. The actual running of the factory itself.

LEY. You mean the watchmen?

MOFFETT. The watchmen and the firemen who furnish the
e light is charged to the factory and any water is charged

r. GRIFFIN. And the upkeep of the buildings.

LEY. Please put in the record a table of this \$400,000 dis-
ne charge the very best you can by purposes for which
s spent. It does not include much for the payment of the

DETAILS OF MAINTENANCE OF NAVAL AIRCRAFT FACTORY.

I. *Naval aircraft factory.*

light, heat (labor and material)-----	\$328, 000
of naval aircraft factory plant, repair to buildings, ls, fire protection, etc-----	72, 000
1. Item I -----	400, 000

Mr. KELLEY. How many men have you working on experimentation, or do they work partly on your work and partly on their work?

Commander LAND. That is exactly what they do.

Mr. KELLEY. You do not know how they divide it up?

Commander LAND. We can divide it up for any day.

Mr. KELLEY. I think that Congress will be generous with you this item of experimentation, because there is a lot of sense in to develop these new types.

Admiral MOFFETT. We will give you more detail.

Mr. KELLEY. If you can give us any information which will be useful as to how many people will be employed on this experimental work, or the average of how many, we shall be obliged.

Admiral MOFFETT. We will try to get some more details.

NOTE.—Between 200 and 300 men are engaged on experimental work. Work is carried on at the naval aircraft factory and in the Washington Yard. Experimental work is also carried on at the works of various contractors, in the Bureau of Mines, in the Bureau of Standards, in the Forest Products Laboratory, at McCook Field, Dayton.

COOPERATION WITH ARMY IN TESTING AND EXPERIMENTAL WORK.

Mr. KELLEY. I should like to ask in this connection, for the purpose of the record, what the relation is between the Army and Navy in regard to this experimental and research work which is being done. We do not want to duplicate.

Admiral MOFFETT. No. For instance, at their station at Dayton they have a place for testing propellers. We have not any such place. So we test our propellers out there. They also test some of our engines out there.

Mr. KELLEY. Will any work be done in the new laboratory for the Army?

Admiral MOFFETT. The new naval laboratory?

Mr. KELLEY. Yes, sir.

Admiral MOFFETT. There is some talk of moving the radio station at Anacostia into that place.

PERSONAL SERVICES—SALARY AND WAGES.

Mr. KELLEY. For personal services: For clerical, inspection, engineering, and messenger forces for new construction at stations under cognizance of the Bureau of Yards and Docks, you have \$275,000. That is the first item we talked about?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. How much are you asking for this year?

Admiral MOFFETT. \$790,000.

Mr. KELLEY. That is due to the fact that all of these clerks, inspectors, messengers, and drafting people heretofore have been carried on other rolls?

Admiral MOFFETT. Yes, sir; that is right.

Mr. KELLEY. It is not due to an increase of the force?

Admiral MOFFETT. That is right, sir.

Commander GRIFFIN. The present roll is \$775,839.36.

Mr. KELLEY. What I said a while ago is correct, that that represents the expenditures of the Bureau of Aeronautics as it is organized at the present time, based upon the expenses which have been scattered over other departments?

iral MOFFETT. This is for the experimental end of the new
 3. We are trying not to go into production at the factory.

- KELLEY. It seems to me that you ought to be able to tell us how
 people are working on this and what pay they are getting, so
 we can tell how this estimate is made up.

iral MOFFETT. We can do that.

- KELLEY. And how much of the \$560,000?

mander LAND. It is impossible to tell that; we do not know
 lives what we are going to do. You can not pin that down to
 absolute estimate at this time.

iral MOFFETT. I have a note here:

actural development: Continue development and research in metal con-
 struction: duralumin and special steels and their fabrication; improved types
 landing arresting and floatation gear; aerodynamic improvements, such
 as swept wings, variable proofing of aircraft; synthetic substitutes for gold-
 leaf's skin and other special materials; improved aircraft instruments, in-
 cluding servo motors, speed indicators, tensionmeters, turn indicators, oxygen
 analysis, wind tunnel and model basin experiments; wood technology; ex-
 perimental types of airplanes that show promise, including ship, torpedo, school,
 photographic types; gliders; improved methods of construction for both
 heavier-than-air and lighter-than-air craft.

- KELLEY. You are reading various sorts of activities that
 be paid for out of this fund?

iral MOFFETT. Yes, sir.

- KELLEY. The amount here seems to be quite exact, \$1,116,950.
 looks as though it were not a mere offhand estimate, or you would
 have made it \$1,117,000 in round numbers, or perhaps \$1,250,000?

iral MOFFETT. Yes, sir.

- KELLEY. You must have had some details?

iral MOFFETT. We cut a percentage off of each item. Our
 estimate was \$21,500,000. Then we cut \$4,500,000 and put it
 at 7,000,000. We took a percentage off those items that we con-
 sidered the least important. We had a conference about that. We
 left here and there. We took off where we could get along best.

- KELLEY. Anyway, you would consider the number of men to
 be employed?

mander GRIFFIN. Not the men. That would be the least cost.
 For instance, Doctor Moore would be allowed money to carry on
 experiments for us. The number of men we do not know. We
 only know the total cost.

mander LAND. I can give you the men at the aircraft factory,
 but would not be of useful information to the committee. There is
 Dr. Moore, and we have spent a lot of money with Doctor Stratton
 at the Bureau of Standards.

NUMBER OF MEN TO BE EMPLOYED IN EXPERIMENTAL WORK.

- KELLEY. It seems to me if I were doing this I would know
 many men would be working on the experimental work the
 next year.

mander LAND. But how about the work of the outside con-
 tractors?

- KELLEY. If you let a certain award to an outside contractor,
 it would be based on the amount of material and labor used?

mander LAND. Yes, sir.

Mr. KELLEY. How many men have you working in connection, or do they work partly on your work and partly in connection with the other work?

Commander LAND. That is exactly what they do.

Mr. KELLEY. You do not know how they divide it up?

Commander LAND. We can divide it up for any day.

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Admiral MOFFETT. We will give you more detail.

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NOTE.—Between 200 and 300 men are engaged on experimental work is carried on at the naval aircraft factory and in the V Yard. Experimental work is also carried on at the works of the Bureau of Ordnance, in the Bureau of Mines, in the Bureau of Standards, in the Food Laboratory, at McCook Field, Dayton.

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Admiral MOFFETT. No. For instance, at their place they have a place for testing propellers. We have a place for testing engines out there. They have a place for testing engines out there.

Mr. KELLEY. Will any work be done in the new laboratory?

Admiral MOFFETT. The new naval laboratory?

Mr. KELLEY. Yes, sir.

Admiral MOFFETT. There is some talk of moving the work from Anacostia into that place.

PERSONAL SERVICES—SALARY AND WAGES.

Mr. KELLEY. For personal services: For clerical, engineering, and messenger forces for new construction in cognizance of the Bureau of Yards and Dockyards? That is the first item we talked about?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. How much are you asking for this year?

Admiral MOFFETT. \$790,000.

Mr. KELLEY. That is due to the fact that all of the clerical, engineering, messenger, and drafting people heretofore have been on other rolls?

Admiral MOFFETT. Yes, sir; that is right.

Mr. KELLEY. It is not due to an increase of the force?

Admiral MOFFETT. That is right, sir.

Commander GRIFFIN. The present roll is 75

Mr. KELLEY. What I said a while ago is correct. It represents the expenditures of the Bureau of Yards and Dockyards at the present time, based upon the rolls which have been scattered over other departments.

Commander GRIFFIN. Yes, sir.

Air Commodore MOFFETT. We have asked for \$15,000 additional to give us a leeway.

KELLEY. Is that what it costs you this year?

Commander GRIFFIN. Yes, sir; as of March 1.

KELLEY. That is the amount you are asking for next year, exclusive of \$15,000?

Commander GRIFFIN. Yes, sir.

KELLEY. You will have, in round numbers, \$790,000 for this year and the next year?

Commander GRIFFIN. Yes, sir. The provision is that those em-
ployments shall not exceed \$790,000. It comes out of the \$17,000,000.

CONSTRUCTION, REPAIR, AND IMPROVEMENT OF STATIONS.

KELLEY. You are not asking anything this year for new construction of buildings and improvements at air stations?

Air Commodore MOFFETT. We are asking under miscellaneous for \$500,000, but I said something about whether that would go through or not.

KELLEY. We do not want to put up any new buildings at stations.

If this is for repairs, we can consider it, but if it is for new buildings, we will not waste any time on it.

Air Commodore MOFFETT. We want it for repairs and replacements.

KELLEY. If you want \$500,000 for repairs at Coco Solo, Hampstead, Lakehurst, Pearl Harbor, and at the other places, we will consider it, but we can not consider anything for new construction.

Commander GRIFFIN. The \$500,000 requested will be required for new construction for replacement of existing temporary buildings. When the condition of existing temporary construction is such that repairs are no longer feasible new construction is necessary for replacements. A few such items will use the entire \$500,000.

KELLEY. You have an item for the maintenance and operation of air stations, aircraft factory, helium plant, etc. That is being taken care of already.

Air Commodore MOFFETT. You could put that under maintenance.

Secretary DENBY. Some months ago, and before the 4th of last month, the hangar at Anacostia burned. We had the money to rebuild it, but there was some question as to the title to the land. We did not put a cent on anything that did not belong to us. Now, we understand that the ground belongs to the Army, and the Army will give us title to the ground, or to the amount of ground necessary, when that is done. I think we should rebuild the hangar. We are doing that station all the time.

KELLEY. Of course, if the title is in the Government, the President can keep you out of trouble on account of it. How much will it cost?

Secretary DENBY. \$50,000; but we have the money with which to

CONSTRUCTION OF CATAPULTS.

Air Commodore MOFFETT. We have an estimate for catapults.

KELLEY. What about the catapults?

Air Commodore MOFFETT. For that we have asked a separate item of \$100,000, under subhead 3.

duties, and the compensation paid to each shall be made to Congress each year in the annual estimates." What about that?

Commander GRIFFIN. We recommend that that amount be changed to \$74,410. That is covered in that letter.

Mr. KELLEY. This is what the Budget officer has sent in.

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. We can not go above that.

Commander GRIFFIN. The last paragraph of the letter says—

Mr. KELLEY (interposing). Is that the Budget officer's letter?

Commander GRIFFIN. I do not know.

The CHAIRMAN. The Budget law provides that nobody is permitted to send anything in the way of estimates up here except through the Bureau of the Budget.

Commander GRIFFIN. The Budget officer has not made any change in this.

Mr. KELLEY. Tell us what you want to do here.

Admiral MOFFETT. We are and have been hampered in the design force more than anything else. It stops everything. We are limited by law in the matter of draftsmen, and it means that I want to get out an experimental type of plane, a great deal of time is lost. At the present time it takes a year to get the plans for such a plane out, and the only reason we have not been able to get them more quickly is because we have not the draftsmen to work on the plans.

Mr. KELLEY. Admiral Taylor has draftsmen to spare.

Admiral MOFFETT. We are getting some from him. He is lending some draftsmen to us, but he will not be paying for them after 1st of July, and we want to pay for them.

Mr. KELLEY. This is to be charged back to the \$790,000 that we have at another place, is it not?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. This is a limitation?

Admiral MOFFETT. Yes, sir. If we could get the draftsmen we could get our plans out in three months instead of having to wait a year.

STATEMENT SHOWING NUMBER AND SALARIES OF ALL CIVILIAN EMPLOYEES

Mr. KELLEY. I wish you would put in the record a full list of employees with the rate of pay for each one. You have a list for draftsmen now in your bureau, and I want a list of the number and the rate of pay of each one.

Admiral MOFFETT. I will do so. (See list below.)

Mr. KELLEY. The idea here is that you want other bureaus to sign technical forces to you?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. I want you to furnish a list of all those positions with the salary attached to each one of them.

Admiral MOFFETT. We will supply that for the record.

Mr. KELLEY. Also put in the record a statement showing where you got them, or from what bureau, and the number from each bureau.

Admiral MOFFETT. I will do so.

Civilian employees, Bureau of Aeronautics.

Assignment.	Pay (per day).	Roll.	Total.	Total per annum.		
Draftsman.....	\$5. 60	Engineering.....	\$16. 40	\$5,133. 20		
Technical assistant.....	10. 80	do.....				
Aeronautical engineer.....	7. 60	Construction and Repair				
Draftsman.....	4. 48	do.....				
Aeronautical engineer.....	9. 20	do.....				
do.....	10. 00	do.....				
Draftsman.....	5. 60	do.....				
Chief draftsman.....	12. 00	do.....				
Asst. mat. engineer.....	4. 80	do.....				
Draftsman.....	8. 40	do.....				
Aeronautical engineer.....	8. 00	do.....				
Draftsman.....	8. 00	do.....				
Asst. mat. eng.....	7. 20	do.....				
Draftsman.....	8. 00	do.....				
do.....	6. 40	do.....	184. 64	57,792. 32		
do.....	7. 60	do.....				
do.....	4. 48	do.....				
do.....	7. 20	do.....				
do.....	7. 20	do.....				
do.....	6. 40	do.....				
do.....	4. 48	do.....				
do.....	6. 00	do.....				
Technical assistant.....	6. 40	do.....				
do.....	6. 80	do.....				
Aeronautical engineer.....	13. 20	do.....				
Assistant aeronautical inspector.....	6. 80	do.....				
Aeronautical engineer.....	8. 40	do.....			9. 60	3,004. 80
Civil engineer aid.....	9. 60	Yards and Docks.....				
				65,930. 32		
Stenographer.....	\$1,400	Operations.....	12,050. 00	12,050. 00		
do.....	1,200	do.....				
Clerk.....	1,100	do.....				
do.....	1,100	do.....				
Chief clerk.....	2,250	do.....				
Stenographer.....	1,400	do.....				
Clerk.....	1,200	do.....				
Stenographer.....	1,200	do.....				
do.....	1,200	do.....				
do.....	1,200	Engineering.....				
Clerk.....	1,200	do.....				
do.....	1,200	do.....				
do.....	1,100	do.....				
do.....	1,200	do.....				
do.....	1,200	do.....	14,660. 00	14,660. 00		
do.....	1,200	do.....				
Stenographer.....	1,200	do.....				
Clerk.....	1,200	do.....				
do.....	1,200	do.....				
Messenger.....	720	do.....				
Clerk.....	1,200	do.....				
Minor clerk.....	840	do.....				
Clerk.....	1,400	Navigation.....				
Stenographer.....	1,200	do.....				
Clerk.....	1,300	Construction and Re- pair.....				
Messenger.....	720	do.....				
Stenographer.....	1,200	do.....				
Clerk.....	1,100	do.....				
do.....	1,300	do.....				
do.....	1,200	do.....	17,540. 00	17,540. 00		
Stenographer.....	1,300	do.....				
Clerk.....	1,200	do.....				
do.....	1,200	do.....				
do.....	1,200	do.....				
do.....	1,200	do.....				
Stenographer.....	1,600	do.....				
Messenger.....	720	do.....				
Clerk.....	1,100	do.....				
do.....	1,200	do.....				
Stenographer.....	1,200	do.....				

Civil Employees, Bureau of Aeronautics

Name.	Assignment.	Pay per day.	
CIVIL EMPLOYEES—Continued.			
Cunningham, R. O.	Clerk	1,000	Yards
Summers, Z. J.	do.	1,100	do.
DeLaydon, E. D.	Stenographer	1,200	Suppli
Larbee, R.	Clerk	1,200	do.
Sullivan, H. C.	Stenographer	1,100	do.
Total clerical roll.			
Total technical roll.			
Grand total.			
Total.			
Construction and Repair technical roll.			
Engineering technical roll.			
Engineering clerical roll.			
Yard and Dock technical roll.			
Yard and Dock clerical roll.			
Operations clerical roll.			
Navigation clerical roll.			
Supplies and Accounts clerical roll.			
Grand total.			

PROVISION FOR MAKING APPROPRIATE

MR. KELLEY. Now, referring to the provision for making appropriations in one sum, can not the

VIRGINIA MORRIS. I would rather not say that, and if the appropriation for maintenance is not made, what we would do. We move the funds where they will do the most good.

MR. KELLEY. We have adjusted this appropriation as to what is required for the year, and we are not like to carry this provision for one year unless there is some particular reason.

VIRGINIA MORRIS. I can see that, but it is not until next year. We had good appropriations last September. For instance, what would I have it now?

MR. KELLEY. When did your bureau close?

VIRGINIA MORRIS. On the 1st of September. If we put things together, we had to

MR. KELLEY. Your excuse for having the appropriation for the fund is the fact that you have not been in existence for a short time, and you have not had for a few months the experience of carrying about the various things that you have experience with.

VIRGINIA MORRIS. That is true, and it is not a very long time.

MR. KELLEY. I think there is a lot of things that you have done in your activities, and I think you have a right to

ded for the ships that are to be scrapped in making repairs to
es and that sort of thing?

miral MOFFETT. I do not think so. I do not know of anything
that we could use. We do not make any engines ourselves, but
y our engines.

. KELLEY. But you repair them.

miral MOFFETT. Yes, sir. I think that the Bureau of Engi-
g and the Bureau of Construction and Repair would save
that material and use it. I do not see where we could use it.

KELLEY. You have a good many hundreds of millions of dol-
-worth of stuff on hand, have you not?

miral MOFFETT. We could use some ships that the Shipping
l has, and we could use, and will use, two of the battle cruisers
rplane carriers. I am sorry that we can not use more than two.

KELLEY. What about the situation so far as wages are con-
l, or how much will you save from a reduction in wages next
om those you are paying the present year?

miral MOFFETT. We have not provided anything for that.

KELLEY. Are you going on paying the same high wages that
re paying this year?

miral MOFFETT. Do you mean in the bureau here?

KELLEY. No.

miral MOFFETT. That is all fixed by the Labor Board. That is
by the navy yards.

KELLEY. In making your estimates, you have not made any
ce at all on account of a reduction or a readjustment of wages
the wages paid during the current year?

miral MOFFETT. I can not say that we have.

KELLEY. You have not made any reduction in anticipation of
ction in the price of material next year?

miral MOFFETT. I can not tell you that right now. The estimates
made up on the basis of past experience.

KELLEY. What is the fact about the price of material as com-
with last year, so far as the materials you use in making re-
are concerned?

miral MOFFETT. The estimates we put in were based upon the
we are paying for planes now.

KELLEY. Material is coming down all the time, is it not?

miral MOFFETT. I think it might come down some more..

KELLEY. Who buys your material?

miral MOFFETT. The material we have at the aircraft factory is
t through the supply officer at the yard. Most of the material
y is bought on the outside from contractors. We try to buy
on the outside as much as we can.

KELLEY. Is there not a reduction in the cost of those materials?

miral MOFFETT. In the aircraft factory we are using wood pro-
during the war or spruce that we had on hand. I think we
a great deal of it still.

mander GRIFFIN. They have been using that material, and it
ning out.

KELLEY. Is the spruce timber you had on hand running out?

mander GRIFFIN. Yes, sir.

KELLEY. I thought you bought up all the spruce on the Pacific

Commander GRIFFIN. I do not know running out. We had an enormous store available for use, but they have dropped

Mr. KELLEY. There must be a tremendous amount of material that the Navy Department was the result of scrapping those battleships.

Commander GRIFFIN. Those things are apt not to gain very much from that.

called reserve material, and that reduced year we had to procure material in a stocks, and whatever we get in the way in 1923 will be charged for. We must

appropriation on account of any material. That money goes back into the Treasury.

Admiral MOFFETT. I do not think they have that would be of any benefit to us.

Mr. KELLEY. How much material did you have in connection with aviation at the end of the year?

Admiral MOFFETT. I think we had about \$1,000,000.

Mr. KELLEY. No more than that?

Admiral MOFFETT. I can find out the exact amount.

Mr. KELLEY. We spent up into the budget what we did not use any of it. We never spent any abroad, did we?

Admiral MOFFETT. Yes, sir; we got plenty of material.

Commander GRIFFIN. Those planes that we have used those materials pretty extensively.

Mr. KELLEY. With an appropriation of \$1,000,000 used up those materials if you had a large amount on hand.

Commander GRIFFIN. Under the appropriation we have been using supplies that we had a large amount of. We have a very much smaller amount of material now. We will have to pay money for what we use.

TOTAL APPROPRIATIONS AND EXPENDITURES

The CHAIRMAN. \$1,450,000,000 was appropriated for the Navy in 1920.

Commander GRIFFIN. We have the total for 1920.

Mr. KELLEY. Not all of that was for the Navy.

The CHAIRMAN. No.

Commander GRIFFIN. We have the total for 1920. We have the total allotted, we returned to the Treasury up to \$1,450,000,000 a total appropriation since aviation started in 1918, hundred and forty-four million and so on.

Mr. KELLEY. The bulk of the appropriation for the Army?

Commander GRIFFIN. Yes; so that the Navy something like \$250,000,000, in round figures.

Admiral MOFFETT. We have \$2,500,000 in, or which we will turn in this year 1920 and in 1921; I think we could spend

not going to do so. However, we could use it very advantage-ly, if it were made a continuing appropriation—the \$2,400,000.

Mr. KELLEY. But you have no appropriations which continue under the law, other than those you have indicated for next year's use? Admiral MOFFETT. No; that is all.

Mr. KELLEY. You have no sources for your bureau except this appropriation?

Admiral MOFFETT. That is all. As to the \$2,400,000 from the old appropriation, I do not believe Congress meant to reappropriate it, but went through with the act creating the Bureau of Aeronautics: the act said all unexpended balances would be turned over to the Bureau of Aeronautics, and that amounted to nearly \$3,000,000.

Mr. KELLEY. But that will revert to the Treasury?

Admiral MOFFETT. On the 1st of July; yes, sir.

THURSDAY, MARCH 23, 1922.

BUREAU OF SUPPLIES AND ACCOUNTS.

PAY OF THE NAVY.

STATEMENTS OF ADMIRAL DAVID POTTER, ADMIRAL THOMAS SHINGTON, CAPT. T. W. LEUTZE, LIEUT. COMMANDER E. A. EY, MR. CLYDE REED, AND MR. R. D. VINING.

Mr. KELLEY. We have with us this morning Admiral Potter, Chief of the Bureau of Supplies and Accounts, and his assistants.

PAY AND ALLOWANCES OF COMMISSIONED OFFICERS.

Mr. KELLEY. We will take up the item "Pay of the Navy," on page 83 of the "Pay and allowances prescribed by law of officers on sea duty and other duty and officers on waiting orders." How much are you rating for, Admiral?

Admiral POTTER. The figures I will give are the amounts required in the absence of further legislation in regard to Navy pay.

Mr. KELLEY. That is to say, we are taking the figures under the act as it will stand on the 1st of July, if there is no intervening legislation?

Admiral POTTER. Yes, sir.

Mr. KELLEY. What is the total pay and allowances of officers on sea duty and other duty and officers on waiting orders, \$26,951,883. That does not include retired list.

Mr. KELLEY. Have you that pay in a division?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Our thousand two hundred and ten commissioned officers on sea duty, total pay, \$12,461,997; 205 commissioned warrant officers on sea duty, \$538,351; 712 warrant officers on sea duty, \$1,507,375; 2,351 commissioned officers on shore duty, \$8,051,850; 300 commissioned warrant officers on shore duty, \$747,000; 241 warrant officers on shore duty, \$449,125. I have the midshipmen—2,400 midshipmen,

Mr. KELLEY. I think, in order to be sure that this record, that you might insert at this point a table showing in each grade of officers, line and staff, on February 1.

Mr. REED. I will get that from the Bureau of Navy, the statement on the next page, which shows how we answer this statement by corps and length of service, answer the

Mr. KELLEY. I think that might help us in comparison situation, but for the record I am inclined to think it helpful.

DISTRIBUTION OF OFFICERS OF CORPS.

Mr. REED. Do you want it for each grade or distribution?

Mr. KELLEY. Have it distributed by corps. On January the Naval Affairs Committee was furnished with a commissioned warrant officers in the Navy at that time, or as of 2. I wish you would insert at this point that table, or tally like it, so that we may have a direct comparison.

Mr. REED. There has been practically no change in the commissioned personnel since that time, but there has been an change in the warrant officers. I think it would be better to give on the warrant officers.

Mr. KELLEY. Let us have the most recent information.

Mr. REED. We will supply that for the record.

Total actual number of officers on active list, line and staff, commissioned warrant and warrant officers, February 1, 1922, in several grades and ranks, showing the additional numbers

	Reg- ular num- ber.	Addi- tional num- ber.	Total.		Reg- ular num- ber.
Line:				Professors of mathemat- ics.....	
Rear admirals.....	41	8	49	Captains.....	3
Captains.....	193	13	176	Commanders.....	4
Commanders.....	285	30	315	Total.....	7
Lieutenant com- manders.....	570	0	570	Chaplain Corps:	
Lieutenants.....	1,323	1	1,324	Captains.....	23
Lieutenants (junior grade).....	497	0	497	Commanders.....	3
Ensigns.....	1,205	0	1,205	Lieutenant com- manders.....	3
Total.....	4,084	52	4,136	Lieutenants.....	45
Medical Corps:				Lieutenants (junior grade).....	14
Rear admirals.....	4	0	4	Acting chaplains.....	9
Captains.....	33	1	34	Total.....	57
Commanders.....	65	0	65	Supply Corps:	
Lieutenant com- manders.....	150	0	150	Rear admirals.....	
Lieutenants.....	537	0	537	Captains.....	
Lieutenants (junior grade).....	19	0	19	Commanders.....	
Acting assistant sur- geons.....	5	0	5	Lieutenant com- manders.....	
Total.....	813	1	814	Lieutenants.....	
Dental Corps:				Lieutenants (junior grade).....	
Lieutenant com- manders.....	26	0	26	Ensigns.....	
Lieutenants.....	124	0	124	Total.....	
Lieutenants (junior grade).....	9	0	9	Construction Corps:	
Total.....	159	0	159	Rear admirals.....	
				Captains.....	
				Commanders.....	

	Reg- ular num- ber.	Addi- tional num- ber.	Total.		Reg- ular num- ber.	Addi- tional num- ber.	Total.
tion Corps—Con-				Civil Engineer Corps—			
utnant com-				Continued.			
manders.....	10	0	10	Lieutenant com-			
tenants.....	128	0	128	manders.....	7	0	7
tenants (junior				Lieutenants.....	49	0	49
de).....	18	0	18	Lieutenants (junior			
Total.....	202	1	203	grade).....	28	0	28
Engineer Corps:				Total.....	105	2	107
Admirals.....	1	1	2	Total line.....	4,084	52	4,136
Ensigns.....	5	1	6	Total staff.....	1,995	8	2,003
Commanders.....	15	0	15	Grand total.....	6,079	60	6,139

CHIEF WARRANT AND WARRANT OFFICERS.

	Line and staff.	Total.
Boatswains.....	79	256
Boats.....	177	
Boats.....	79	310
Boats.....	231	
Boats.....	128	278
Boats.....	150	
Boats.....	56	127
Boats.....	71	
Boats.....	110	126
Boats.....	16	
Boats.....	37	277
Boats.....	148	
Boats.....	92	1,374
Boats.....		
Boats.....		

NUMBER, GRADE, AND SALARY OF COMMISSIONED WARRANT OFFICERS.

Mr. KELLEY. We have covered the commissioned officers on the list, and we will now take up the warrant officers.

Mr. POTTER. The commissioned warrant officers having the pay of lieutenant for 20 years' service number 29 persons, at a compensation of \$99,792; the commissioned warrant officers having the pay of lieutenant, junior grade, 153 persons, at a pay of \$340; commissioned warrant officers having the pay of ensign, 1 persons, at a pay of \$753,219; making a total for commissioned warrant officers in pay of \$1,285,351.

Mr. KELLEY. Now we will take up the warrant officers.

Mr. POTTER. Warrant officers, 952 persons, with a pay of \$6,500.

NUMBER, CLASS, AND SALARY OF MIDSHIPMEN.

Mr. KELLEY. Now, the midshipmen.

Mr. POTTER. This is the 2,400 figure.

Mr. KELLEY. That includes the three classes?

Mr. POTTER. Four classes.

Mr. KELLEY. That includes what we are short and the i class next year?

Admiral POTTER. Yes, sir. There are 2,400 midshipmen with pay of \$1,872,000.

Mr. KELLEY. That makes a total, if you commission all the shipmen, for the pay of officers on active duty—

Admiral POTTER (interposing). A total of \$25,627,698.

Mr. KELLEY. What would be the total if you commissioned of them?

Mr. REED. \$24,569,701.

PAY OF OFFICERS ON RETIRED LIST.

Mr. KELLEY. The next is pay of officers on the retired list.

Admiral POTTER. Seven hundred and ninety commissioned unemployed, \$2,673,090; 152 commissioned warrant officers, unemployed, \$291,750; 93 warrant officers, \$150,000; making a total pay of officers on the retired list, for 1,035 persons, \$3,114,840.

Mr. KELLEY. Under the law an officer is supposed to receive fourths of the pay of the rank or grade in which he retired.

Admiral POTTER. Yes, sir; unless there is some exceptional rate that makes some exceptional rate.

Mr. REED. There are one or two men on the retired list drawing furlough pay.

Mr. KELLEY. Do any of these sums contemplate the employment of retired officers on the active list next year?

Admiral POTTER. No, sir; it contemplates none assigned to duty.

Mr. BYRNES. Do you mean there will be none?

Admiral POTTER. No, sir. Of course, the Secretary has the right with their permission, to assign them to any active duty, but they do not draw over the pay of a lieutenant commander.

Mr. BYRNES. If he does assign a retired officer to active duty?

Admiral POTTER (interposing). He can not draw over the pay of a lieutenant commander on the active list.

Mr. BYRNES. Does the law so provide?

Admiral POTTER. Yes, sir; in time of peace.

Mr. BYRNES. You have no retired officers on the active list?

Admiral POTTER. There are very few. I saw the other day there were about seven or eight.

COMMUTATION OF QUARTERS FOR OFFICERS, GUNNERS, MACHINISTS, NAVAL ARCHITECTS, AND ENGINEERS, ETC.

Mr. KELLEY. Commutation of quarters for officers, including swains, gunners, etc.

Admiral POTTER. For commissioned officers on shore duty, 744 rooms, at a money value of \$1,149,408; commissioned warrant officers on shore duty, 744 rooms, at a money value of \$107,136; warrant officers on shore duty, 374 rooms, at a money value of \$53,856; making a total of money value, \$1,310,400.

Mr. REED. I want to call attention to what might be considered a discrepancy between the number of rooms on which the commutation of quarters is figured and the commutation for heat and

allowing commutation of quarters, we made a deduction for officers on shore duty occupying Government quarters. However, in case they are entitled to their heat and light, which is charged by the appropriation, and the cost runs about the same as the commutation allowance. So that for convenience of calculation, we used the full number of rooms to which all officers on shore duty would be entitled.

KELLEY. What you say accounts for the difference between \$4,000 and 7,982?

REED. Yes, sir. There are 52 warrant officers now occupying Government quarters.

KELLEY. If the provisions of the existing law were extended to the full number, how much would that make this appropriation?

ADMIRAL POTTER. That would make the total item, \$3,292,848, for commutation of quarters. That would bring the noncommissioned officers into the purview of allowance of quarters at sea.

KELLEY. The additional sum required by reason of commutation of quarters for officers at sea amounts to \$1,982,448.

ADMIRAL POTTER. Yes, sir.

KELLEY. If the present law were extended this amount would be \$292,848?

ADMIRAL POTTER. Yes, sir.

COMMUTATION OF QUARTERS, NURSES CORPS.

KELLEY. The next item is for the Nurses Corps.

ADMIRAL POTTER. For commutation of quarters, Nurses Corps, the estimate is \$1,000. This estimate is based upon past experience. There are 433 persons in the Nurses Corps.

REED. They receive commutation under certain circumstances.

KELLEY. The amount is almost negligible?

REED. Yes, sir; most of them have quarters. It varies from \$100 to \$1,000 a year.

HIRE OF QUARTERS FOR OFFICERS SERVING WITH TROOPS.

KELLEY. The next item is for hire of quarters for officers serving with troops where there are no public quarters.

ADMIRAL POTTER. That estimate is \$20,000.

REED. Those are cases where the officers hire quarters because the vessel may become uninhabitable while undergoing repairs, particularly in a foreign port.

ADMIRAL POTTER. That happened in the case of the *Scorpion* at Constantinople, where they had to live on shore for a long time.

PAY OF RETIRED ENLISTED MEN.

KELLEY. The next is pay of retired enlisted men.

ADMIRAL POTTER. There are 653 persons, at a pay of \$678.566.

KELLEY. That is based on the current rate of expenditure?

ADMIRAL POTTER. Yes, sir. We have a table showing the number of persons in each grade and the actual pay.

PAY OF MEN REENLISTING WITH HONORABLE DISCHARGE.

Mr. KELLEY. I do not believe that will be useful to us. The item is for extra pay to men reenlisting with honorable discharge.

Admiral POTTER. That is \$3,772,000. I have the details of it.

Mr. KELLEY. Give us the details.

Mr. REED. The honorable discharge gratuity received by men on reenlistment is limited both by period of prior service and the term for which the reenlistment is made. At the present time reenlistments are made only for a period of four years, and not three years and two years, so that in preparing the estimate the Bureau of Navigation gave the distribution by prior service of men who were expected to reenlist, based on two, three, and four years.

Mr. KELLEY. In figuring the discharge gratuity, you based it on the length of service in the expiring enlistments?

Mr. REED. Yes, sir.

Mr. KELLEY. That is to say, if a man served a two-year enlistment he would get a two-month gratuity; if he serves a three-year enlistment he gets a three-month gratuity; and if he serves a four-year enlistment he gets a four-month gratuity?

Mr. REED. Yes, sir.

Mr. KELLEY. You have made this calculation upon that basis?

Mr. REED. Yes, sir. This is based on a total of 12,000 reenlistments. The Bureau of Navigation gave this distribution by grades and length of service, and the amount actually required for the payment of gratuities would, of course, depend upon the number of years served by the men who reenlist.

Mr. KELLEY. And the total is \$3,772,059?

Mr. REED. Yes, sir. We dropped the \$59 in our estimates.

INTEREST OF DEPOSITS.

Admiral POTTER. The next is interest on deposits, \$10,000. That is the estimated amount to be paid men for putting their money in what we call the ship's bank, on which they are allowed 4 per cent interest.

Mr. KELLEY. That money goes into the Treasury?

Admiral POTTER. Yes, sir.

PAY OF PETTY OFFICERS, SEAMEN, ETC.

Mr. KELLEY. The next is pay of petty officers, seamen, landsmen, apprentice seamen, etc., based on an enlisted force of 65,000.

Admiral POTTER. The total of that is \$57,341,846.

Mr. KELLEY. That would be under the present pay, and not according to the pay that will be in effect.

Admiral POTTER. Under the other rate it would be \$51,832,351.

Mr. KELLEY. On the basis of the present pay, that would be much?

Admiral POTTER. \$57,341,846.

Mr. KELLEY. That is the full pay of the enlisted personnel?

Admiral POTTER. On the active list, on the basis of 65,000.

r. **KELLEY.** And no special items for apprentice seamen are to that anywhere?

REED. No, sir. There is an allowance included in there of \$74 for additional pay to enlisted men on aviation duty. They are entitled to 50 per cent additional.

NUMBER AND GRADE OF PETTY OFFICERS AND ENLISTED MEN.

KELLEY. Give the distribution of this \$51,832,351 by classes.

r. **REED.** Chief petty officers, 6,762. I can not give you the distribution on that without making a subtraction, but if you want the distribution, I will insert that in the record.

r. **KELLEY.** The numbers will do.

r. **REED.** Chief petty officers, 6,762; chief petty officers of the first class, 10,493; chief petty officers of the second class, 9,057; chief petty officers of the third class, 5,889; firemen of the first class, 2,327; firemen of the second class, 2,327; firemen of the third class, 2,327; nonrated men of the first class, 11,512; nonrated men of the second class, 10,388; cabin cooks and stewards, 235; wardroom cooks and stewards, 412; steerage cooks and stewards, 51; warrant officers' mess attendants, 111; mess attendants of the first class, 814; mess attendants of the second class, 814; mess attendants of the third class, 407, making a total of 65,000.

ADDITIONAL PAY FOR AVIATION.

r. **KELLEY.** Do you want to make some allowance there to take care of additional pay for aviation?

r. **REED.** Yes, sir; for aviation. The 50 per cent additional for aviation covers additional pay for the following: Chief petty officers, 340, \$288,252; petty officers, first class, 110, \$60,588; petty officers, second class, 40, \$18,144; petty officers, third class, 10, \$3,690, making a total additional for aviation pay of \$370,674.

r. **KELLEY.** And that should be added to the \$51,832,351?

r. **REED.** No, sir; that is included in the \$51,832,351.

PAY OF PRISONERS.

r. **KELLEY.** Pay of enlisted men undergoing sentence of court-martial.

Admiral POTTER. Nine hundred and ten, at a total pay of \$520,520.

r. **KELLEY.** They get what pay when they are under sentence?

r. **REED.** The amount of pay in the rating they hold is charged against the appropriation, although the men themselves only receive the amount as the court-martial may allow them, and it averages \$572 a month. The average pay has been running about \$572, and for that reason we use that figure.

r. **KELLEY.** That is about what the courts-martial have allowed them to draw.

r. **REED.** No; the men do not receive all of that, and none of them receive more than \$3 a month for their own benefit.

Admiral POTTER. That becomes forfeited to the naval hospital.

Mr. KELLEY. This is one of the sources for building up the hospital fund?

Admiral POTTER. Yes, sir.

Mr. KELLEY. And will the Secretary's new regulation make difference in this particular?

Mr. REED. It will make a difference if the men are reduced in ratings because the pay will go down. Of course, this is less the actual number of prisoners at the present time, and I did not have any basis for reducing the average rate for next year.

DIFFICULTY OF REDUCING NUMBER OF CHIEF PETTY OFFICERS.

Mr. OLIVER. Right in that connection, Admiral Washington, suppose you establish seven ratings in the Navy, how long will a man taken in as a recruit be required to serve before he is eligible for promotion from one rating to another?

Admiral WASHINGTON. Under the present circumstances, and the possible reduction of the Navy to 65,000, it would be an indeterminate time, because we now have chief petty officers and petty officers, and second classes, in excess. The numbers which have just been read off there are not what we have in the Navy; they are fictitious numbers of rated men based on 65,000 total enlisted force, but we have actually more than 94,000 men now in the Navy, and consequently those numbers read have no bearing on the actual existing Navy.

Mr. OLIVER. I think I said something to Captain Williams to that effect, and we are interested here because under a pending bill, which will probably come up very soon, you are reducing the pay of a new man coming in, and in view of the fact that the chance for promotion is so slight, I am afraid you are going to seriously embarrass yourselves in securing suitable young men whom you will have reason to hope could qualify later for the higher ratings and to which you can offer a better inducement to them.

Admiral WASHINGTON. It might make it difficult if abnormal conditions continue. The recruiting service does not think that the slight reduction of pay alone will interfere with enlistments, but the numbers read off there, for instance, 6,700, as I recall, are chief petty officers, are not what we have. In reality we have about 10,000 more than that, or perhaps 3,500 more, and apparently in this reduction no provision is made for them. As you have estimated it they assume the 3,500 are not to be paid.

Mr. OLIVER. Mr. Kelley and I are very familiar with the situation in the Navy had prior to 1916 in maintaining even the 50,000, and we had to make an appropriation of funds in order to induce them to come in, and that has been one of the fears I have had in reference to reducing their pay, especially in view of this stagnation which we speak of.

Mr. KELLEY. Where did you get this distribution?

Mr. REED. It was furnished by the Bureau of Navigation.

Mr. KELLEY. On the basis of 65,000 men?

Mr. REED. Yes, sir.

Admiral WASHINGTON. That is what we would require in the case of petty officers and others if the total force were limited to 65,000, but, understand, we have 94,000 in the Navy, and when we reduce

Do the petty officers do not come down proportionately—the loss most entirely in the lower grades. For instance, we can by making voluntary discharges almost get rid of every seaman, every man second class, and every seaman apprentice before any considerable number of chief petty officers would request their discharge. Now, in that 6,700 number we would have what we need in a rounded Navy of only 65,000, but on the 1st of January last I just about, say, 10,500 chief petty officers, due to the war conditions, and as he read the numbers and pay off there I do not think provision is made for the pay of this extra 3,500 or more men whom we now actually have in the rating of chief petty officer.

MR. KELLEY. I assume the Bureau of Supplies and Accounts made pay table on the basis of information furnished them by you for distribution of 65,000 men.

ADMIRAL WASHINGTON. Yes; but if we started with a new Navy entirely—

MR. KELLEY (interposing). But in starting with a new Navy I suppose you took into consideration the new basis.

ADMIRAL WASHINGTON. We supplied them with the number of chief petty officers we needed for a Navy of 65,000 men, but we have a surplus on our hands of 94,200.

MR. KELLEY. You will have to get rid of the difference, will you?

ADMIRAL WASHINGTON. Yes, sir; and that is the difficulty; but we can not get rid of them on the 1st day of July, and that is when the bill goes into effect. That has got to be done by a gradual process. Those men have a contract with the Navy through a four-year enlistment, and unless a law is passed by which we arbitrarily discharge them out, I do not see how it is possible for us to come down to the condition you suggest without reasonable time and doing justice to the enlisted men.

MR. OLIVER. In other words, if we should fail to appropriate in any way as to take care of the binding contract which they have with the Government, there would still exist an obligation against the Government for their pay?

ADMIRAL WASHINGTON. Yes, sir.

MR. KELLEY. Do they not have a clause in all their enlistment contracts that they enlist for four years unless sooner discharged?

ADMIRAL WASHINGTON. I do not think that is in there, but we have always exercised that right; the department has always exercised the right of discharging a man from his enlistment, but the Government itself has no right whatever to sever an enlistment from his contract. If we sever without further consideration the enlistment of 2,500 or 3,000 chief petty officers, it would mean the demoralization of the Navy.

MR. OLIVER. In other words, they probably acquiesce in your retention of a right which, perhaps, does not legally exist?

ADMIRAL WASHINGTON. They sometimes do not acquiesce in it; sometimes accept it, but with a great deal of objection, resentment, and regret.

MR. KELLEY. You do not intend to have all petty officers in the Navy, do you?

Mr. KELLEY. That includes what we are short and the class next year?

Admiral POTTER. Yes, sir. There are 2,400 midshipmen, pay of \$1,872,000.

Mr. KELLEY. That makes a total, if you commission all shipmen, for the pay of officers on active duty——

Admiral POTTER (interposing). A total of \$25,627,100.

Mr. KELLEY. What would be the total if you commission all of them?

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PAY OF OFFICERS ON RETIRED LIST.

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Admiral POTTER. Seven hundred and ninety commissionaires unemployed, \$2,673,090; 152 commissioned warrant officers, \$291,750; 93 warrant officers, \$150,000; making a total pay of officers on the retired list, for 1,035 persons, \$3,114,840.

Mr. KELLEY. Under the law an officer is supposed to receive four-fourths of the pay of the rank or grade in which he is retired.

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Mr. REED. There are one or two men on the retired list on furlough pay.

Mr. KELLEY. Do any of these sums contemplate the pay of retired officers on the active list next year?

Admiral POTTER. No, sir; it contemplates none assigned to active duty.

Mr. BYRNES. Do you mean there will be none?

Admiral POTTER. No, sir. Of course, the Secretary has the power to assign them to any active duty, but he does not draw over the pay of a lieutenant commander.

Mr. BYRNES. If he does assign a retired officer to active duty, does he draw over the pay of a lieutenant commander?

Admiral POTTER (interposing). He can not draw over the pay of a lieutenant commander on the active list.

Mr. BYRNES. Does the law so provide?

Admiral POTTER. Yes, sir; in time of peace.

Mr. BYRNES. You have no retired officers on the active list?

Admiral POTTER. There are very few. I saw that there were about seven or eight.

COMMUTATION OF QUARTERS FOR OFFICERS, GUNNERS, MAINTENANCE MEN, AND CONSTRUCTORS, ETC.

Mr. KELLEY. Commutation of quarters for officers, gunners, etc.

Admiral POTTER. For commissioned officers, 1,000 rooms, at a money value of \$1,149,408; for gunners on shore duty, 744 rooms, at a money value of \$852,000; for officers on shore duty, 374 rooms, at a money value of \$428,000, making a total of money value, \$1,310,400.

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ELLEY. What you say accounts for the difference between \$1,982,448?

ED. Yes, sir. There are 52 warrant officers now occupying Government quarters.

ELLEY. If the provisions of the existing law were extended to them, how much would that make this appropriation?

al POTTER. That would make the total item, \$3,292,848, for commutation of quarters. That would bring the noncommissioned officers into the purview of allowance of quarters at sea.

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ED. They receive commutation under certain circumstances.

ELLEY. The amount is almost negligible?

ED. Yes, sir; most of them have quarters. It varies from \$100 to \$200.

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PAY OF RETIRED ENLISTED MEN.

ELLEY. The next is pay of retired enlisted men.

POTTER. There are 653 persons, at a pay of \$678.566.

ELLEY. That is based on the current rate of expenditure?

POTTER. Yes, sir. We have a table showing the number of persons in each grade and the actual pay.

Mr. KELLEY. This is one of the sources for build hospital fund?

Admiral POTTER. Yes, sir.

Mr. KELLEY. And will the Secretary's new regulation make a difference in this particular?

Mr. REED. It will make a difference if the men are re-rated because the pay will go down. Of course, it will not make a difference in the actual number of prisoners at the present time, but it will make a difference on any basis for reducing the average rate for next year.

DIFFICULTY OF REDUCING NUMBER OF CHIEF PETTY OFFICERS

Mr. OLIVER. Right in that connection, Admiral Washington, if you propose you establish seven ratings in the Navy, how long will a man taken in as a recruit be required to serve before he is eligible for promotion from one rating to another?

Admiral WASHINGTON. Under the present circumstances, the possible reduction of the Navy to 65,000, it is a long time, because we now have chief petty officers and petty officers in first and second classes, in excess. The numbers which are read off there are not what we have in the Navy; the numbers of rated men based on 65,000 total would be about 35,000. We have actually more than 94,000 men now in the Navy, and consequently those numbers read off have no bearing on the Navy.

Mr. OLIVER. I think I said something to Captain Kelley that, and we are interested here because we are going to have a new man coming in, and in view of the fact that the promotion is so slight, I am afraid you are going to have to barrass yourselves in securing suitable young men. I have reason to hope could qualify later for the promotion, but you can offer a better inducement to them.

Admiral WASHINGTON. It might make it difficult if the conditions continue. The recruiting service does not make a slight reduction of pay alone will interfere with the numbers read off there, for instance, 6,700, the number of petty officers, are not what we have. In reality we have more than that, or perhaps 3,500 more, and as you have no provision is made for them. As you have no provision, assume the 3,500 are not to be paid.

Mr. OLIVER. Mr. Kelley and I are very familiar with the Navy had prior to 1916 in maintaining the Navy. We had to make an appropriation of funds in order to come in, and that has been one of the fears of the Navy to reducing their pay, especially in view of the fact that we speak of.

Mr. KELLEY. Where did you get this data?

Mr. REED. It was furnished by the Bureau of Naval Personnel.

Mr. KELLEY. On the basis of 65,000 men?

Mr. REED. Yes, sir.

Admiral WASHINGTON. That is what we would have if we had a reduction of petty officers and others if the total force was reduced to 65,000, but, understand, we have 94,000 in the Navy,

) the petty officers do not come down proportionately—the loss is entirely in the lower grades. For instance, we can by making voluntary discharges almost get rid of every seaman, every seaman second class, and every seaman apprentice before any considerable number of chief petty officers would request their discharge.

Now, in that 6,700 number we would have what we need for a rounded Navy of only 65,000, but on the 1st of January last I was just about, say, 10,500 chief petty officers, due to the war conditions, and as he read the numbers and pay off there I do not see how provision is made for the pay of this extra 3,500 or more men which we now actually have in the rating of chief petty officer.

KELLEY. I assume the Bureau of Supplies and Accounts made a very reliable table on the basis of information furnished them by you for a reduction of 65,000 men.

ADMIRAL WASHINGTON. Yes; but if we started with a new Navy I am not sure—

KELLEY (interposing). But in starting with a new Navy I am sure you took into consideration the new basis.

ADMIRAL WASHINGTON. We supplied them with the number of officers we needed for a Navy of 65,000 men, but we have a surplus on our hands of 94,200.

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ADMIRAL WASHINGTON. Yes, sir; and that is the difficulty; but we cannot get rid of them on the 1st day of July, and that is when the bill goes into effect. That has got to be done by a gradual process. Those men have a contract with the Navy through a four-year enlistment, and unless a law is passed by which we arbitrarily discharge them out, I do not see how it is possible for us to come down to the condition you suggest without reasonable time and doing justice to the enlisted men.

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ADMIRAL WASHINGTON. I do not think that is in there, but we have always exercised that right; the department has always exercised the right of discharging a man from his enlistment, but the Government itself has no right whatever to sever an enlistment from his before the contract. If we sever without further consideration the enlistment of 2,500 or 3,000 chief petty officers, it would mean the complete demoralization of the Navy.

OLIVER. In other words, they probably acquiesce in your opinion of a right which, perhaps, does not legally exist?

ADMIRAL WASHINGTON. They sometimes do not acquiesce in it; sometimes accept it, but with a great deal of objection, resentment and regret.

KELLEY. You do not intend to have all petty officers in the Navy do you?

Mr. KELLEY. You think we ought to keep them, too?

Admiral WASHINGTON. Which ones, sir?

Mr. KELLEY. The officers in the Naval Reserve Force still have in the Navy on active duty.

Admiral WASHINGTON. I should like very much to keep are doing good service, very good service, and some of been in the naval service for 25 years and yet, without any or anything prior to the action of the present Congress present session, we propose to cut them out. Of course element of fair dealing which appeals to me very largely.

DEFICIENCY OF MONEY FOR TRANSPORTATION CAUSED BY THE REDUCTION OF
NAVY TO 65,000 MEN.

Mr. KELLEY. Your idea is that we ought to keep all all the officers who are in the Navy now?

Admiral WASHINGTON. I am perfectly willing to reduction now that the war is over; but I do not think should be down to 65,000, making a reduction of 29,000.

Mr. KELLEY. How many have you now?

Admiral WASHINGTON. We had yesterday by Congress have tried to act honestly and fairly with the men years ago—of which you are well aware. I explained to you in great detail—we had 94,000 men. We enlisted men in the lower ratings and we men with us now two, three, and nearly four times as many men will practically all go out this year. That large number going out after short enlistment caused this heavy transportation expense, of which you are aware two years ago and last year—the cost of sending home of those men has caused that deficiency. I have explained; and, if you will recall, you agreed to come to you in December last and it would have granted the deficiency without hesitation as you are aware it would necessarily be incurred.

Mr. KELLEY. You got your deficiency, did you?

Admiral WASHINGTON. No, sir; the deficiency is by doubtful that I do not think it will be met. Now we are confronted with a possibility of a deficiency and it looks as though we must discharge them. Therefore these men under the law—

Mr. KELLEY (interposing). That is true, a deficiency if the Navy you would be entitled to a full appropriation.

Admiral WASHINGTON. But some of them are in the prospective time, seeing the man acting toward them. So that a good many more than they would have otherwise gone; or thousands I can not say, but some undoubtedly.

Mr. KELLEY. We will pay their fares about that.

Admiral WASHINGTON. But you have not given which to pay their fares home.

Mr. KELLEY. If they go home in larger numbers, you can come back.

Admiral WASHINGTON. That is the experience we had last year, and had as much difficulty—

r. KELLEY (interposing). Did we not give you all you asked?

Admiral WASHINGTON. That I do not know; I was not present.

r. KELLEY. Well, we did, anyhow.

Admiral WASHINGTON. But we will need more than that in all ability.

r. KELLEY. That is due to something that is in prospect and nothing that has happened so far.

Admiral WASHINGTON. That is due to the action you are taking and the notice that is going out in the newspapers as to the way men will be treated, after we have gone out into the country and them that if they made this their life work they would be taken of, and that the Navy offered them an excellent future which, in class of life, was greatly better than they could ordinarily expect in civil life.

r. OLIVER. In order to have the record disclose exactly what happened over two years ago, when this increase was provided for the officers as well as the enlisted personnel, you found at that time a condition confronting you: That employment was readily obtained on the outside at very advantageous terms?

Admiral WASHINGTON. Yes, sir.

r. OLIVER. And the prices paid were so greatly disproportionate to those you were paying in the Navy that it was impossible to hold very essential men in these grades?

Admiral WASHINGTON. Yes, sir.

r. OLIVER. Your statement to the committee was that it would not be necessary to meet those prices, but that if there was a reasonable increase you felt confident they would remain with you and that some would return who had left?

Admiral WASHINGTON. Yes; that is correct, but coupled with that is the fact that we were holding out to them that the Navy was to be their life work for them.

r. OLIVER. I am going to bring that out. Then you gave as your reason why they would return, even though they were getting less in the Navy than they could at that time secure on the outside, the fact that they loved the Navy work?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. That they felt it would be a career and they had associations there, and that was the reason why you explained to us that a reasonable increase would bring them back, even though it did not meet the high prices paid on the outside?

Admiral WASHINGTON. That is correct.

Mr. OLIVER. And my recollection is that so pressing was the need for action at that time that the committee, before the bill was reported, authorized, I think, Mr. Kelley himself to make a statement through the papers telling these men that the committee, no matter what its attitude might be with reference to the commissioned personnel, would certainly provide some increase for these ratings?

Admiral WASHINGTON. That is my understanding.

Mr. OLIVER. That is my recollection about it.

Mr. KELLEY. The fact that we did it bears that out, but we made it effective for a certain period of time.

Admiral WASHINGTON. I did not say anything of that kind.

Mr. KELLEY. I am trying to get your viewpoint.

Admiral WASHINGTON. My viewpoint is that if the Navy made 96,000 we would get along very satisfactorily.

Mr. KELLEY. But if Congress decides on 65,000 the Navy is destroyed?

Admiral WASHINGTON. Oh, no; I did not say that. I said it would have a demoralizing effect, a very serious and severe but I think the Navy can survive this blow, which I regard as a most serious one that has been directed at the Navy within knowledge and possibly within the history of the Navy. I think the Navy will survive it. The Navy can do a great many things to pull itself together and the struggle will be to do so and accomplish it and bring us back on a firm footing. But I do feel that the effect on these chief petty officers and others who would be so seriously served by a reduction to 65,000 something to which we must give very, very careful consideration. You asked how it could be done.

DESIRE TO INDUCE CHIEF PETTY OFFICERS TO JOIN FLEET RESERVE.

One effort I should make would be to induce these men into the fleet reserve, where we have promised to send them. We have held that out to them, and in that way we can get a reduction very satisfactorily. Recently we have had as many as 1,000 to go into it.

Mr. KELLEY. Have you worked out a table showing how long chief petty officers and others have served?

Admiral WASHINGTON. I have it, yes; but I do not have it with me.

Mr. REED. That is being compiled, but they told me a few days ago it would take more than two weeks to get it together because they did not have their cards punched in that way.

Mr. KELLEY. Would the first step be to know how many in the petty officer class had served 12 years?

Admiral WASHINGTON. Sixteen.

Mr. KELLEY. And then how many had served 20 years?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. If you knew that then you could tell how many would be induced to go into the fleet reserve under the existing law.

Admiral WASHINGTON. That would merely be a guess, and it is not possible to tell but approximately what the men will do. A great many of these sailormen are rather hard headed about leaving the Navy.

Mr. KELLEY. You could probably tell approximately how many of these men have had less than 12 years' service.

Admiral WASHINGTON. We can tell you very quickly how many have had various years of service, but we can not tell what the minds of those men are and whether they would take advantage of the proposed law and transfer to the reserve.

Mr. KELLEY. Mr. Reed said it would take two weeks to get the data.

Admiral WASHINGTON. No; not at all.

Mr. REED. As to the pay ratings; yes, sir.

Admiral WASHINGTON. I can give you the numbers, and that is what I meant.

those numbers read by him we have got to drastically fire 3,000 enlisted men we have above those numbers and violate our obligation we entered into with them a year or so ago.

SELLEY. If the Navy should be reduced to 65,000, your method of reduction would be not to disturb the higher ratings much but take the men out of the lower ratings?

SENATOR WASHINGTON. Not at all.

SELLEY. How would you do it?

SENATOR WASHINGTON. We have got to work it out and do it as well as we can. We can not afford to chuck out 3,000 chief petty officers the effect of that would be demoralizing.

SELLEY. How would you do it? That is what I am getting at.

SENATOR WASHINGTON. I certainly would not do it in the manner in which the Naval Affairs Committee is attempting to do it in the bill which they have just introduced in the House if it can be— that is, to kill all idea of continuous service in the Navy, that would be the effect of that bill if passed.

SELLEY. I have not read that bill, so I do not know what it is.

SENATOR WASHINGTON. That bill, if passed, will practically kill continuous service.

SELLEY. In brief, what does it provide?

SENATOR WASHINGTON. The last proviso is that no man shall be allowed to reenlist in the Navy who has had less than 12 years' service without special permission from the Secretary, but I suspect they would be giving wholesale special permission in order to carry out what the bill seems to intend. The intent of Congress would be to say if that bill were passed, and that would appear as indicating that continuous-service men were not desired.

SELLEY. Of course, we are proceeding only on existing law; we are not thought of any legislation, but if Congress decides to reduce the Navy to have 65,000 men then it is not up to you to say that is right or wrong.

SENATOR WASHINGTON. No; not at all.

SELLEY. It is for you to get rid of the men down to that number.

SENATOR WASHINGTON. Yes, sir.

SELLEY. Now, how would you do that?

SENATOR WASHINGTON. That is a thing we would have to give consideration to.

SELLEY. Have you not done that, and up to this time have you not given it consideration?

SENATOR WASHINGTON. Oh, yes; but somehow or other I can not convince myself to believe that Congress really has that in mind.

SELLEY. Well, you had better get that in your head pretty soon.

SENATOR WASHINGTON. Well, it will come hard, and if it is done it will see anything short of your almost giving a deathblow to the morale which exists in the Navy.

SELLEY. You think the only way we can keep the Navy up to 100,000 men in it?

SENATOR WASHINGTON. I would like to see you carry 96,000.

SELLEY. Otherwise we will destroy the Navy?

it is something which the officers have taken a great deal of in telling the men. That is one thing which concerns a drastic step which you propose to take, Governor, would do so with what has been the accumulation of 50 years or so. There was a time when we did not have enlistment for continuous service. We had a great many beach combers and men of that kind and all nationalities comprising our Navy. Then we got the three-year enlistment; that is, we got Congress to make the enlistment continuous and to give the men a little bounty for reenlisting at three months and then four months for an enlistment for a four-year period. That has been what we have been drilling into the men for 35 or more years. I think the law for continuous service was first enacted in 1887 or 1888. When I first went to sea our crew were men that we picked up anywhere and of any nation and enlisted for the cruise, one to five years, five years being the longest. When the men left they had no claim on the Government whatsoever. Now, under the law, he is allowed to come back upon presenting an honorable discharge in four months for reenlistment and is given four months' bounty and gets an increase of pay and gets a further increase if he is an American citizen, and if he has gone through technical schools, etc., as practically most of these men now have done.

It has been the accumulation and result of the work of forty years. You propose to wipe that away without any consideration.

Mr. KELLEY. How many men did we have in the Navy at that time? Admiral WASHINGTON. 260,000 or 270,000.

Mr. KELLEY. That was during the war—before the war. How many men did you have in the Navy when these people came in?

Admiral WASHINGTON. When I first entered the Navy I think I had something like—

Mr. KELLEY (interposing). No; just before the war.

Admiral WASHINGTON. We had about 67,000 authorized—54,000 in the service.

Mr. KELLEY. What could you promise or anybody else promise that induced a man to come in when we had 54,000 to believe he was going to be permitted to remain on the basis of 100,000 or any other number above that?

Admiral WASHINGTON. The Act of August 29, 1916, which was passed prior to the war, gave him more inducements than any other act. That was passed just before the war. That is why these men came in. The fleet reserve was established by that act.

Mr. KELLEY. My recollection is that you came before the committee a while ago and said that they were all leaving the Navy.

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. That your ships were being tied up at the docks at navy yards, that the ships were being destroyed in certain ways that they were all leaving.

Admiral WASHINGTON. Not all leaving.

Mr. KELLEY. Leaving to such an extent—

Admiral WASHINGTON (interposing). Great numbers were.

Mr. KELLEY. Leaving to such an extent that the Secretary of the Navy reported to Congress—that the men in these essential services were leaving to such an extent that practically he had only a rough figure to remember—I have forgotten the exact figure.

airal WASHINGTON. That is substantially correct.

KELLEY. That is, because all of these men in the higher ratings were going to leave and had left.

airal WASHINGTON. I do not like the using of the word "all."

KELLEY. To such an extent that you could not operate the

airal WASHINGTON. If you will look back over the hearings—

KELLEY (interposing). Is not that right?

airal WASHINGTON. No, sir.

KELLEY. A year or two ago that these men in the higher ratings were leaving the ships, leaving the service to such an extent that it did to tie up the ships, you could operate, only on a very limited

airal WASHINGTON. I do not know as to that, because I was not on the committee.

KELLEY. That these men operating the engine rooms and all sort of thing were all going out and had gone and that the way we could manage to get them back was to increase the pay rapidly, and you came here with that statement and we did it in our statement, that they were all leaving and going into civil

airal WASHINGTON. That is a little too broad. If you will look back it you will find that I said they were leaving, a large proportion of the machinists, electricians, and people of that kind, because they could get jobs outside, but at no time did I state that all upper ratings were leaving. If you got that impression you were entirely wrong.

KELLEY. I remember the situation very well, because we had our advisement.

OLIVER. Just this qualification I would make to the statement: that, perhaps, instead of saying they were all leaving they said some had left and perhaps they may have said a great many left?

airal WASHINGTON. Yes, sir.

OLIVER. And they said further that there were a number who were threatening to leave?

airal WASHINGTON. Yes, sir.

OLIVER. Unless they could be assured of some advance.

KELLEY. But the situation would not have been improved by the threatening.

OLIVER. I recall that some representatives of the enlisted men were before the committee. They also made a statement that they were using every effort to have these men remain in the service after the committee could act.

airal WASHINGTON. Yes, sir.

OLIVER. And that they had the promise and assurance that they could remain in if legislation of this kind would probably be passed; that is my recollection.

airal WASHINGTON. That is about correct, as I recall it. That is mainly about the way I intended to convey the information.

Mr. KELLEY. Here is a letter from the Secretary of the Navy to the Speaker of the House, in which he says—this is on the 20th December, 1919:

I am advised by the Chief of the Bureau of Navigation—

That was your predecessor?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY (reading):

That the loss has been growing so rapidly that to-day we only have such skilled men in the artificer and engine room branches proportionately to the Navy of 45,000 men, though we have a total enlistment of 102,000 men in the Navy.

Admiral WASHINGTON. I think that was correct at the time.

Mr. KELLEY. You came along here just a little while later than these upper ratings—

Admiral WASHINGTON (interposing). That has been said so many times that I should be very glad to again repeat it. We had during the war a total of so many—I do not remember—ships in commission, the regular ships in the Navy; we had the Army transport service, the N. O. T. S. service—we must have had 2,000 or maybe nearer 3,000, perhaps even more, and the Navy was called upon to supply the officers and men for those vessels. We took from the Naval Reserve and enlisted men in the Regular Navy, as we know, to the extent of about 280,000, so that the total number of officers and men, together with the reserve, was a little over 600,000. All of these ships and other transports engaged in service of war required officers and men, and they were supplied with officers and men, the whole fleet, before I crossed to the other side; the whole United States fleet in the Chesapeake Bay and where it was turned into a training school for the making of petty officers, primarily, the making and training of enlisted men. They turned them out by the hundreds and hundreds. These men were appointed petty officers in 1917 and 1918 and sent to these 3,000 or so ships so that those ships were manned and the war was successfully conducted. The result was at the close of the war when we began to demobilize, these Army transports were back, the N. O. T. S. were turned over to the Shipping Board or otherwise, and the Navy having these men enlisted in the Navy had to receive them back as the merchant vessels were transferred to their original owners.

Mr. KELLEY. We understand that.

Admiral WASHINGTON. I want to finish this, because perhaps other members of the committee may not have understood it.

Mr. KELLEY. I think we all understand it.

Admiral WASHINGTON. Until we had a large excess away from the needs of the Navy proper when we reduced to 120,000 from a total near 600,000 men in 1919 and 1920. Thus, we had this enormous excess of chief petty officers, first class, and of the lower ratings made to man the auxiliary naval vessels during the war but in excess of the needs of the Navy after demobilization of vessels. Those who enlisted for the duration of the war or for four years. Under the law they were allowed to extend their enlistment for a period of three, or four years, or they got \$60 bonus and then reenlisted for those periods. Many of them did, because we could not say to an honorably discharged person, "No, we do not want you;" we had to take him back. So we did. The result was that we had a

or instance, in bandmasters, in chief boatswain's mates, sailmates, and men in a great many other ratings. The other we wished to hold, to which you have referred, in the ratings, such as electricians, machinists, etc., could and did get a good pay outside and in considerable numbers they left it accounts for this letter which you have just read from the y, but the people like the boatswain's mates, sailmakers' quartermasters who were really seamen, and their life was on did not leave us for better jobs. They could not generally. A great many of them did go to the Shipping Board and like that temporarily.

BYRNES. They remained in the service?

SENATOR WASHINGTON. They remained in the service and they account for the excess almost solely. I have told that so often to the Affairs Committee, a member of which committee the governor is at the time, that I think it is due to the rest of the committee understand how that excess occurred. It was not the purpose of the Navy Department to create an excess of chief petty

BYRNES. When the other ships went out it left you with these

SENATOR WASHINGTON. Yes, sir.

BYRNES. Why a big excess of bandmasters?

SENATOR WASHINGTON. All large vessels and many of the moderate vessels usually carry bands; all troop transports carried them, and these vessels were turned back to their owners the bandsmen enlisted men were thrown back into the Navy, and thus we created an excess of bandmasters, just as in other ratings. Excess bandmasters have the same rights as any enlisted man, it is a moral obligation which appeals very strongly to me.

BYRNES. The moral obligation might be so strong that you keep him after you had no duty for him to perform?

SENATOR WASHINGTON. We have duties for all the bandmasters, assign them as members of the bands. In one extreme case 11 bandmasters in one band at one time.

SENATOR KELLEY. The Government finds itself in the same situation a private individual finds himself in when he has no further employment of an individual. We can not go on. We are in a situation in the navy yards. It is not an easy one. There is a time, in my judgment, in the history of the Navy when the duties of administering the Navy the difficulties of the Secretary of the Navy, approached what they are now. And I do not think you can take the position that simply because we have hired in the past and now find ourselves where we have no use for them that we have to keep on paying them out of the Government treasury and tax the people to support them. I think you will have a little different attitude.

SENATOR WASHINGTON. I agree with you.

SENATOR KELLEY. If you fill up these higher ratings of the Navy, as you have, by men who have come from different ships during the war and who have been made petty officers on those ships during the war of the grade of yeoman—those are bookkeepers?

SENATOR WASHINGTON. Yes, sir.

Mr. KELLEY. Doing clerical work a good deal, and some of those other semicivilian occupations, you number of people in these higher ratings drawing this are not mechanics, who are not electricians, who are tributary to the operation of the ships, we are under continue those men during times of peace simply because in time of war.

Admiral WASHINGTON. I agree with you very largely. I think there is much difference of opinion between

Mr. KELLEY. Now, the time has come when we will get them out. It is not a pleasant job.

Admiral WASHINGTON. We are combing them out

Mr. KELLEY. You must not think, Admiral, that it is a cheerful job for Congress or that it is a cheerful job for the Navy. I do not know a man in the Government at present in my judgment, who has any more difficult problem than to handle them in better shape than the Secretary or the President will try to help him to do some of these things. It will be hard for him if we did not help him.

MAKING 16-YEAR SERVICE MEN ELIGIBLE FOR FLEET RESERVE

Mr. BYRNES. Admiral your statement is based upon the fact that we failed to provide for the fleet reserve. Is that what you have complained about?

Admiral WASHINGTON. No, sir. I am hoping you will provide for the reserve. I do not know what Congress intends to do for the fleet reserve. I understand it is in another bill. If it is settled, provided the bill passes.

Mr. BYRNES. You would not have as much complaint if the reserve were taken care of; then those men could be put into the fleet reserve?

Admiral WASHINGTON. If you allow them to go into the reserve. There are many of them, but I do not think that the number should be reduced to 6,700.

Mr. OLIVER. A considerable number of men are

Admiral WASHINGTON. Not so many.

Mr. OLIVER. Did I understand you to say that you

Admiral WASHINGTON. No, sir; but there is a difficulty. The difficulty is with the 16-year men. As soon as they reach the class of 16 years—

Mr. KELLEY (interposing). Suppose that the men would be eligible for the fleet reserve?

Admiral WASHINGTON. Yes, sir; that would relieve the Navy very much.

Mr. KELLEY. Provide that the people who were discharged be eligible for the fleet reserve after 16 years.

Admiral WASHINGTON. I think it should be the suggestion of the Secretary.

Mr. KELLEY. We will help you out.

Mr. OLIVER. I think that the suggestion of Mr. Kelley is a good one, but, at the same time, in order that we may have the benefit of a suggestion of that kind would be if we

we to submit to us a list of those who are between the ages of 20 years and whom you may thus provide for?

Mr. WASHINGTON. Yes, sir.

Mr. OLIVER. It might be, in the absence of definite information, I would not care for any great number of this excess, you understand. I think it would be well to let there appear clearly the number you could thus provide for if we gave you the enabling legis-

Mr. WASHINGTON. Yes, sir.

Mr. OLIVER. Then, I would like to know, and you could, perhaps, give accurate information by submitting the question to the Judge Advocate General, whether under the law as it now stands those who are commissioned as petty officers in these different grades would have no obligation against the Government in the event we understand to change their status?

Mr. WASHINGTON. The Government would have no legal obli-

Mr. OLIVER. Did you not intimate a few moments ago that there would be?

Mr. WASHINGTON. In passing them out, if they did not go to the Judge Advocate General.

Mr. OLIVER. In the event they do not go willingly, have they contracted with the Government which, if no provision was made for them, would give them a claim against the Government?

Mr. WASHINGTON. No, sir. A man whose enlistment expires—

Mr. OLIVER (interposing). But as to a man whose enlistment has expired?

Mr. WASHINGTON. I do not think anybody can bring a suit against the Government under their enlistment contract.

Mr. DENBY. They have no legal claim.

Mr. BYRNES. Unless sooner discharged, like in the Army?

Mr. WASHINGTON. I do not think so.

Mr. DENBY. There is no legal obligation.

Mr. OLIVER. I would like for you to just simply consult the Judge Advocate General, who is very familiar with the law, and have a statement placed in the record.

Mr. WASHINGTON. Yes, sir.

NUMBER AND PAY OF MEN IN FLEET RESERVE.

Mr. OLIVER. How many have you in the fleet reserve?

Mr. WASHINGTON. A total of about 5,400.

Mr. OLIVER. You estimate that the average man—we will further provide for those—that we might authorize to be transferred to the fleet reserve would have something around \$800 a year?

Mr. WASHINGTON. Something in that neighborhood; but less than that had less service.

Mr. OLIVER. I understand.

Mr. WASHINGTON. There is a proviso in the enlistment contract which says, "unless sooner discharged by proper authority." Therefore no legal claim lies against the Government if the Government should cancel a man's enlistment prior to its expiration.

PAY OF NURSE CORPS.

Mr. KELLEY. The next item is "Pay of the Nurse Corps."

Admiral POTTER. Four hundred and thirty-three at a total pay of \$366,720. We have the details of those if they are of interest.

Mr. KELLEY. Their pay is statutory?

Admiral POTTER. Yes, sir.

Mr. REED. The same as that for the Army.

RENT OF QUARTERS FOR NURSE CORPS.

Mr. KELLEY. The next item is "Rent of quarters for members of the Nurse Corps."

Admiral POTTER. \$25,000.

Mr. REED. That is in those cases where there are not quarters at the naval hospitals for which the Government has to rent quarters outside in order to have them conveniently located.

RETAINER PAY AND ACTIVE SERVICE PAY OF NAVAL RESERVE.

Mr. KELLEY. The next item is "Retainer pay and active service pay of members of the naval reserve force."

Admiral POTTER. That is put down at \$4,000,000.

Mr. KELLEY. This is the item that the Admiral was talking about. That is based on what?

Mr. REED. That amount was fixed at the time the estimate was submitted, based on taking care of the then existing fleet of reserves plus 500 reserve officers on active duty. It was estimated that about \$4,000,000 would be required, although no careful calculation was made at that time.

NUMBER AND PAY OF AUXILIARY OFFICERS.

Mr. KELLEY. Is this the fund from which the auxiliary officers are paid?

Mr. REED. Yes, sir.

Mr. KELLEY. How many of those are there?

Mr. REED. I have not the data.

Admiral WASHINGTON. About 270 now on active duty.

Mr. KELLEY. You told me other day about 410.

Admiral WASHINGTON. In addition there are about 90 aviators making it 360 total. The number is being reduced continually.

Mr. REED. The pay of the 270 reserve officers would be \$744,000. For the other reserve officers no calculation was made, as I had understood that none of those would be retained on duty. In the original calculation we provided for 230, whose pay would have been \$440,000.

Mr. KELLEY. Is not that in the \$4,000,000?

Mr. REED. At that time it was intended to be covered.

Mr. KELLEY. Is this the pay and allowances?

Mr. REED. Just the pay.

Mr. KELLEY. This includes the 270?

Mr. REED. Yes, sir.

Mr. KELLEY. And how many others?

Mr. REED. Two hundred and thirty.

KELLEY. And how much would be the amount?

REED. \$494,560, making a total of \$1,240,767.

KELLEY. That will come out of the \$4,000,000?

REED. Yes, sir; it was so intended.

KELLEY. What would that leave in the \$4,000,000?

REED. \$2,759,233. No definite calculation was made at the time to just what number we would care for.

COSTS OF ENLARGING FLEET RESERVE TO VARIOUS SIZES.

KELLEY. What would the 5,200 fleet reserve cost?

REED. The present estimate in number of fleet reserve, which is based on the present number and the normal increase—

OLIVER (interposing). What is the normal increase?

REED. In class 1-C, which is the 16-year grade, they are increasing at the rate of about 19 a month—there were 938 on the 1st of March—so we are estimating for 1,118 as the average number during the fiscal year 1923. In class 1-D men, the 20-year men, on the 20th of March, and they are increasing in numbers at a rate of 54 per month, so we provide an average of 2,258 during the fiscal year 1923.

In class 1-B men we have approximately 3,500 at the present time, and about 1,500 will be discharged prior to July 1, 1922, and 1,000 during the fiscal year 1923. As they are not being replaced, the average number for next year is estimated at 1,500.

ADMIRAL WASHINGTON. If the present number of men in the Navy is reduced to 65,000 from 94,000, that number will materially in-

KELLEY. Out of the class we have been talking about here—

ADMIRAL WASHINGTON. Yes, sir; very materially.

REED. In addition to the enlisted men I give you, there will be 10 officers in class 1 of the Naval Reserves next year. The number on March 1 was 419; 83 of them will be discharged prior to July 1, 1922, and 11 during the fiscal year 1923, making the average number for the year 330. The total amount that will be required for class 1 naval reserves is \$3,596,000.

KELLEY. That is, with all the eliminations you have provided

REED. Yes, sir. That is for the retainer pay, based on the present numbers, figuring the normal number of decreases and increases in the various classes.

KELLEY. You have taken off the \$746,207 for auxiliaries?

REED. Yes, sir.

KELLEY. And the \$494,560 for aviation?

REED. Yes, sir.

KELLEY. That leaves \$3,596,000?

REED. Yes, sir; for the fleet reserve just as we figure it will be increased next year.

KELLEY. Can you put in the record a statement showing to what extent this fund will have to be increased for each 1,000 men that might be transferred to higher ratings?

REED. I went over that with Captain Enoch early in the week, and we made some calculations. We decided that the average man

who would be eligible for transfer, or the average retainer figure up \$61.49 per month. So we thought that \$720,000 per thousand would cover it. If you should 4,500 men would be transferred, the top ratings would be \$3,240,000 in addition to the \$3,596,000, or a total of retainer pay. If provision is made for the retention or duty in the auxiliary class, then an additional amount added for their pay.

Mr. KELLEY. How much did you say the amount was thousand?

Mr. REED. \$720,000 per thousand men.

Mr. KELLEY. We can figure with Admiral Washington probable number of officers, and adjust the figures accordingly believe that will open the door.

Secretary DENBY. That being but an estimate.

Mr. KELLEY. It is an experimental thing. You are going to have a reorganization that is hard, and it is difficult for you to make estimates on a thing like that. Of course, nobody will hold you to account for them. Deficiencies, if necessary, will not be a violation of any law or a violation of any agreement with the public on this item.

REIMBURSEMENT FOR LOSS OF PROPERTY.

Admiral POTTER. The next item is for reimbursement of property, which we put at \$10,000. That is on account of losses and other marine disasters.

SIX MONTHS' DEATH GRATUITY.

The next item is the six months' death gratuity, \$1,000 based upon past experience, and has been somewhat diminished.

Mr. KELLEY. That makes a total of how much?

Admiral POTTER. \$92,760,280.

Mr. KELLEY. That is not quite right, because the gratuity is \$1,000 upon \$4,000,000 to \$3,596,000 in the Reserve Force. All the other items we have between us. Does that finish pay of the Navy?

Admiral POTTER. Yes, sir.

PROVISIONS OF THE NAVY.

Mr. KELLEY. The next is "Provisions of the Navy."

Admiral POTTER. This year we are \$16,599,820 for the Navy for 1923 a total of \$16,599,820 upon 65,000 men and 2,000 marines serving 65,000 men of the Regular Navy, plus 2,000 marines at any given moment—that is to say, for 67,000 men estimated for at 50 cents per diem per man that calculation is \$12,227,500. The average present is running \$0.5656. That is the rate of pay involved. We compiled, for the year 1921, 6,779,047 rations, and found that the average cost of rations, was \$0.5656.

Q. KELLEY. How did you arrive at that average?

A. Admiral POTTER. We took our returns for the quarter, which included the number of rations actually consumed on each ship and every individual enlisted man on it. We added all of that together and divided by the total.

Q. KELLEY. What is included in the cost of the ration?

A. Admiral POTTER. The cost of the ration includes the food; and nearly all of it is purchased, according to our plan as stated yesterday, east of the Mississippi River, it includes freight.

Q. KELLEY. It is the cost of the food laid down at your stores on the Atlantic and on the Pacific?

A. Admiral POTTER. Yes, sir; but 90 per cent of our food purchases are made on the east coast.

Q. KELLEY. There are some handling charges. Are they included?

A. Admiral POTTER. The ordinary handling charges from the station on board ship? No, sir. They are not included.

Q. KELLEY. So that it is really just the cost of the food?

COMPARISON OF ARMY AND NAVY RATION COSTS.

A. Admiral POTTER. Yes, sir; and, of course, that carries with it the other expenses.

Q. Now that you will be interested in the matter of comparison between the Navy ration and the Army ration, and if you will allow me I will discuss that a little. As you know, the Navy ration is better in quantity, and I believe it is better than the Army ration. The quantity is directed by law. The quantity to be served to the enlisted men of the Navy is directed by law, and we furnish the quantity ordered by law, and that is 36 per cent more food than the Army gets. That, of course, right away means a considerable addition to the cost of the food.

Q. KELLEY. Even if it were in exactly the same form?

A. Admiral POTTER. Yes, sir. However, our ration has been running more than 36 per cent greater in money value than the Army ration. It has been running for the second quarter of 1922, or for the quarter ended December 31, 1921, 64 per cent in value greater than the Army ration for the same period. As I have said, our ration is 36 per cent better in quantity. The Navy's food also costs more, because it is more expensive packages, and because several of our items are considerably more expensive, we having a greater proportion of canned meats, etc. In addition, the Army ration appears to cost less than it does. The money to procure the ration furnished the Army gives several increments. The Army posts have gardens, and they very substantially increase, without expense to the Government, their ration. They also increase it through their operation of exchange, whence they derive money to increase the ration. They also sell the excess vegetables to the officers, and that money is used in to increase the amount allowed by Congress for the ration. Therefore, the Army ration, or the initial Army ration, so far as the Government against the Government appropriation are concerned, costs less, and the value of the food actually furnished seems to me considerably more. The Army ration, furthermore, does not in-

clude freight. This latter statement I have just procured from the Army within the last week, although informally.

Mr. KELLEY. That is a very important point. Are you sure the Army ration does not include freight?

Admiral POTTER. According to the informal statement that I have just given us, it does not. I have some other matters here. This touches upon freight, the matter we were talking about yesterday. The Army in the purchase of subsistence makes its purchase largely for delivery f. o. b. factory, and it is transported under Government bills of lading. Hence, the cost of that transportation is chargeable to an appropriation other than that to which the cost of the provisions is charged, and is not computed in determining the final cost of the ration.

Mr. KELLEY. That is very important information, if you are certain about it.

Admiral POTTER. That is the information we get from them.

Mr. KELLEY. It is information that will convince, and that is the best kind of information.

Admiral POTTER. There is another point I would like to mention, and that is that the cost of our ration increases beyond the cost of the Army ration. One of the reasons for that increase is because of the issue to enlisted men of the engineering and dynamo forces who have night watches. That is in accordance with law. The law allows us to do that, and we furnish them an issue between 8 p. m. and 8 a. m.

Mr. KELLEY. A sort of midnight lunch?

Admiral POTTER. Yes, sir; we usually give them sandwiches, and tinned fruit.

Mr. KELLEY. You can not do too much to suit me.

Admiral POTTER. That adds from one-half a cent to 1 cent to the cost of the ration. There is one other thing that I think you were interested in. At one time last year, I think, you displayed an interest in the relative increase, and you pointed out that in 1910 and 1920 the increase in the value of the ration over the Army seemed to be in excess of the quantity increase. I am not in your language, but that was the effect of it. I have checked the rates back since 1910 up to the present time, and have the increase shown for each year. In 1910 our money value increase above the Army's was 63 per cent; in 1911, it was 58 per cent; in 1912, it was 54 per cent; in 1913, it was 61 per cent; in 1914, it was 52 per cent; in 1915, it was 46 per cent; in 1916, it was 33 per cent; and in 1917, it was 32 per cent.

Mr. KELLEY. That was when the Army was abroad, and their cost was high.

Admiral POTTER. That was in 1918-19, when our ration was only 12 per cent higher. Then it climbed to 28 per cent, and in 1921, it was 78 per cent higher.

Mr. REED. In 1918 it cost practically the same.

Admiral POTTER. In December, 1921, it was running 64 per cent.

Mr. KELLEY. How is their ration controlled—by regulation of the Secretary of War?

Admiral POTTER. Yes, sir; by the President acting through the Secretary of War. They readjust the ration on his order, but it is statutory.

Mr. KELLEY. Of course the boys on shore can slip away and get their lunch occasionally, whereas the boys in the Navy can not do that.

Admiral POTTER. That is true, and that is a very important reason. Any soldiers of the Army, they tell us, often actually eat two special meals per day, while of course in the Navy we feel that three special meals must be provided, because our men are on the ships to eat all their meals.

Mr. KELLEY. Admiral Wilson was discussing that in connection with the Military Academy at West Point, and it appears that they have one self-served meal that the boys get in a cafeteria.

ESTIMATE FOR SUBSISTENCE FOR 1923.

Admiral POTTER. Here is another thing: The subsistence for 1923 for crews serving on Army transports is estimated at 55 cents.

Mr. KELLEY. That is the cost?

Admiral POTTER. That is their estimated cost for 1923 for their people serving on Army transports.

PROVISIONS ON HAND.

Mr. KELLEY. How much provisions have you on hand?

Admiral POTTER. We have now about \$6,200,000 worth.

Mr. KELLEY. Could we not eat into that very comfortably?

Admiral POTTER. We did that last year. We had about \$15,000,000 worth, and we began eating into that. We thought that in view of the diminished number of enlisted personnel we might begin to eat into what we had normally regarded as our reserve stocks.

Mr. REED. There are certain provisions, such as dried and tinned provisions, that we purchase annually. These are purchased annually at certain seasons of the year, because that is the time when we can get the best price. Therefore of some items we may have a year's supply on hand, while of other items of which the value does not fluctuate particularly we carry a shorter supply, or simply enough to meet the issues.

Admiral POTTER. This \$6,000,000 worth would be approximately a six-month supply.

Mr. KELLEY. Generally you have about three months' supply on hand, do you not?

Mr. REED. No, sir; of some items we must carry at least a year's supply in stock.

Mr. KELLEY. In the case of canned corn, tomatoes, and that kind of stuff, you buy your supply at the time the crop is harvested or put up?

Admiral POTTER. Yes, sir; butter and tinned fruits and vegetables, particularly.

Mr. KELLEY. You have really done pretty well, and you did not think you could do this well, did you?

Admiral POTTER. No, sir; but when you were talking about 60 cents for the ration last year, I did not suppose that we would use the supply down below 15 months. I took it for granted that we would continue to hold our war reserve.

Mr. KELLEY. You figured on 68 cents?

Admiral POTTER. That was the initial figure.

Mr. KELLEY. Did you consent to 60 cents?

Admiral POTTER. No, sir.

Mr. KELLEY. What was it that you agreed to?

Mr. REED. 63 cents.

Mr. KELLEY. In that case the layman made a better guess than you did.

Admiral COONTZ. That was done by letting them cut down to months.

Admiral POTTER. We have eaten up eight or nine million dollars worth of supplies that ordinarily would have remained in stock.

Mr. KELLEY. I do not think farm products will go much lower than they are. You probably will not buy much cheaper next than you have this year.

Admiral POTTER. Within the last few months we checked up the food situation in 15 cities, and it had gone up on an average from 1 to 2 per cent. Whether that increase will continue or not, I do not know.

AVERAGE RATION COSTS.

Mr. KELLEY. You will get along with 50 cents this year?

Admiral POTTER. I hope so, sir; if we have good luck.

Mr. KELLEY. What is the Army ration?

Admiral POTTER. They requested 34 cents, I think. They were 34.39 cents.

Mr. KELLEY. It is costing 32 cents, and the bill carries 30 cents. For the Navy we will have to add 20 cents to that, which would be an increase of 66 per cent.

Admiral POTTER. Yes, sir; and our monetary increase is 64 per cent now. Last year it was 78 per cent, and in December, 1921, it was 64 per cent. I understand that the War Department states that approximately \$1,150,000 will be needed in addition to the amount provided for the Army by the House bill.

NUMBER AND COST OF DESTROYER RATIONS.

Mr. KELLEY. I do not suppose there will be quite as much for destroyer rations during the coming year, and would not that be more than 4 cents difference in the ration as compared with last year? What is your destroyer average?

Admiral POTTER. For the same quarter I have named, the destroyer ration amounted to 2,382,790 rations, and the average was 69.77 cents.

Mr. KELLEY. About 70 cents in round numbers?

Admiral POTTER. Yes, sir.

Mr. KELLEY. If it were not for that your ration would come down under 50 cents. As I recall, you figured on something over 6,000,000 rations. How many men will 6,000,000 rations feed?

Mr. REED. Seventy-five thousand men.

Mr. KELLEY. That would last how long a period?

Mr. REED. Three months.

Mr. KELLEY. They would last three months for that number of men?

REED. That is according to the last complete returns we have.

KELLEY. The returns covered October, November, and December?

REED. Yes, sir.

miral POTTER. That allows for giving the men the full quantity allowed by law during the three months. We do not get monthly is showing the ration, but only quarterly returns.

KELLEY. If there is a reduction, it does not show until you get old stock used up. Your old stock is in there at a certain price.

miral POTTER. It is adjusted to the actual price all the time.

KELLEY. It is adjusted to the current price all the time?

miral POTTER. Yes, sir.

KELLEY. You can do that because it is not tied up in the other

miral POTTER. Yes, sir.

KELLEY. You use this without being paid for it?

miral POTTER. Yes, sir; direct from the provisions appropriated without reimbursement to any other fund. I have here a table which shows each component of the ration, compared with the Army ration and our ration. I do not know whether that is of interest to you.

KELLEY. How many destroyers, both active and in reserve, are on them?

miral COONTZ. 278.

KELLEY. During those three months?

miral COONTZ. I think that is about right.

KELLEY. There were not many of them laid up?

miral COONTZ. No, sir; not of those; we had some, but I did not know them.

KELLEY. Suppose you had 103 in full commission and the 175 laid up as a great reserve defense for the country, what difference would that make in the ration?

REED. The distribution of the ration cost, taking the cost, by vessel, and types of vessels, and applying that to the vessels proposed to be kept in commission, brings us just about the same.

KELLEY. That is where you get your 4 cents, is it; making 54 cents instead of 54 cents?

REED. No; it still shows 56 cents. By taking the ships that are expected to be in commission and the ration cost for each type of vessel, it gives us an average cost of \$0.56379 in the Atlantic and \$0.581 in the Pacific, which is just about the cost of the present ration. In other words, the distribution of men between ships carrying supply officers and those not carrying supply officers would be about the same proportion as it is now.

KELLEY. I would not think it would be.

miral POTTER. If you will look at that sheet you will see how worked that out.

KELLEY. Of course, they were in reserve, but they had 50 men on them all the time.

miral COONTZ. But they had opportunities for saving because they were very often tied up six together, and they would probably on one ship, the same as we use steam to heat six, and there

would be a cheapening in that regard as compared to a ship cruise by itself.

Admiral POTTER. I do not know whether it would be interesting to show the relative nutritive values between our Navy and other navies.

Mr. KELLEY. I think we are perfectly satisfied to have you give the boys the very best.

Admiral POTTER. Our ration is 8.7, the British 7.2, the Japanese 6.3, and the French 3.7.

LOSSES BY SURVEY ASHORE AND AFLOAT.

Mr. KELLEY. You have an item on this list of losses by survey ashore and afloat. How do you estimate those losses?

Admiral POTTER. That is based upon past experiences, which went over for a long while back. Each return we get each quarter shows the losses by survey just as it shows the cost of the ration—that item of \$519,670 is 4½ per cent of the estimated cost of the ration—that is, of the \$12,227,500. It just happens to be that centage.

Mr. KELLEY. This includes the ration for the midshipmen, does it not?

Mr. REED. Yes, sir.

Admiral POTTER. That is, the total does?

Mr. KELLEY. The cost of the ration is averaged in.

Mr. REED. We take the subsistence of the entire number of men at the rate we use; then if subsistence is furnished to additional numbers as to the warrant officers, midshipmen, and nurses, that goes in as an additional item.

Mr. KELLEY. That is not included in the ration of 50 cents?

Mr. REED. No, sir.

Mr. KELLEY. That is a separate matter?

Mr. REED. Yes, sir.

Mr. KELLEY. But it is included in this total of \$16,000,000?

Mr. REED. Yes, sir.

ADVANCES TO ACADEMY FOR PURCHASE OF FARM.

Mr. KELLEY. Admiral Wilson told us the other day that the \$100,000 which you have here may be reduced to 80 cents, in round number, and I think he said 81 cents, if we did not require them this year to put up anything for the reimbursement of the general account advances.

Admiral POTTER. I think that is correct, if we were not required to have the price which the dairy charges to midshipmen for milk furnished. In order to build up a sinking fund for the purpose of making up the \$250,000 advance under general account of advances we now credit a portion of the \$1.08 to a sinking fund.

Mr. KELLEY. What would be your recommendation with regard to the \$250,000 that was loaned to the academy for the purpose of buying a farm?

Admiral POTTER. In order to enable you to reduce from \$1.08 to 81 cents, I think the best way would be to have Congress forgive that \$250,000.

r. KELLEY. There is really not much sense in appropriating in order to reimburse that fund, because it is just sending it out through the academy and back into the Treasury.

Imiral POTTER. That is precisely it.

r. KELLEY. Suppose you refigure that at 80 cents, and that will pretty close to the West Point figure. How much would that off?

r. REED. \$245,280, making the amount required for the ration midshipmen \$700,800, at 80 cents per day. We have not been accumulating 28 cents per man per day during the past; the subsistence has been costing more than that, and that is evidently due to other conditions in cost.

Imiral POTTER. It was not until quite recently that a decided effort was made to accumulate a sinking fund.

RECOMMENDATION OF SECRETARY OF NAVY FOR COMPENSATION TO MIDSHIPMEN AFTER GRADUATION FROM ACADEMY.

r. KELLEY. Mr. Secretary, what recommendation, if any, would make us to any compensation or other payment to the midshipmen who are to be commissioned and discharged from the Academy at graduation?

Secretary DENBY. My recommendation would be that not less than six months' pay as ensign in the United States Navy shall be paid to each man qualified for commission under the law after duly passing the examinations and ready to accept a commission who is not commissioned in the United States Navy, but who receives his discharge upon graduation and passes out of the service.

r. KELLEY. Without regard to whether they enter any other branch of the Government service?

Secretary DENBY. Yes, sir.

RATIONS FOR COURT-MARTIAL PRISONERS.

Imiral POTTER. The next item is 910 court-martial prisoners at 25 cents per diem, which would amount to \$132,860. That is based on past experience. We do not have to furnish court-martial prisoners undergoing punishment full rations, and we estimate that we feed them for 40 cents per diem and at the same time give them cooking food. That amount is \$132,860.

COMMUTATION OF SUBSISTENCE FOR NURSES.

The next item is commutation of subsistence for nurses not subsidized by the Government, for which the estimate is \$37,412. The Army's commutation is based upon the Army law.

The next item is commutation of subsistence for nurses on leave pay, for which we estimate \$5,000.

The next is for 392 nurses at hospitals, at 60 cents per diem, \$85,848. This, again, is allied with the Army by statute.

The next is for the difference that must be allowed between 75 cents and 50 cents per diem for 1,000,000 sick days in hospitals, which amounts to \$250,000.

r. KELLEY. The hospital allowance is 75 cents?

Imiral POTTER. Yes, sir.

r. KELLEY. Is that permanent law?

Admiral POTTER. No, sir; it is carried in the ap
Mr. REED. It is costing in the neighborhood of on
It varies from 90 cents to something over \$1 per day.

SUBSISTENCE OF MEN ON DETACHED DUTY.

Admiral POTTER. The next item is for subsistence of
tached duty. The Bureau of Navigation estimates the
men as 3,229 throughout the year, and the total estim
720, less subsistence in kind included in item 1, amount
292, leaving the additional amount that must be we
subsistence of men on detached duty at \$1,278,428.

SUBSISTENCE OF SHORE PATROLS.

The next item is for subsistence of shore patrols, cover
for one-half time, at \$5 per day, \$684,375, less sul
included in item 1, amounting to \$68,438, leaving t total
\$615,937.

For losses by survey, both ashore and afloat, the
is 4½ per cent of item 1, amounts to \$519,670. I thi that
a conservative figure.

Mr. KELLEY. That covers the loss of food that spoils!

Admiral POTTER. Yes, sir; inevitably some fresh veg
go wrong. For instance, potatoes loaded in New York for
Panama must be picked over very carefully. That estimate 5

The final item is labor at navy yards handling provi

Mr. KELLEY. I wonder if any such item as that is lea
Army ration; that is, that charge for handling provi s!

Admiral POTTER. I understand that it is not inclu
not computed as a part of the cost of their ration. Our total
item, making the corrections, is \$16,328,818; that is, after
the adjustments for the midshipmen, etc.

Mr. KELLEY. You will put that in the record in the form of:
will you not?

Admiral POTTER. I will do so.

Provisions, Navy, 1923 (revised for 65,000 men).

1. Sixty-five thousand men Regular Navy, 2,000 marines serving afloat, a total of 67,000 men, at 50 cents per diem (\$182.50 per annum)	\$12,257.
2. Nine hundred and sixty-one warrant officers entitled to rations at 50 cents per diem (\$182.50 per annum)	173.
3. Two thousand four hundred midshipmen entitled to rations at \$1.08 per diem (\$2302 per annum)	
4. Nine hundred and ten court-martial prisoners at 40 cents per diem (\$146 per annum)	132.
5. Commutation of subsistence for nurses not subsisted by Government, 14,965 days at \$2.50 per diem	37.
5a. Commutation of subsistence for nurses on leave with pay	3.
6. Three hundred and ninety-two nurses at hospitals at 60 cents per diem (\$219 per annum)	85.
7. Difference between 75 cents and 50 cents per diem for 1,000,000 sick days in hospital	250.
8. Subsistence of 3,229 men on detached duty, \$5,117.04 per day, total per year	\$1,897,720
Less subsistence in kind included in item 1	599,292
	<u>1,278,428</u>

Subsistence of shore patrol, 750 men for half time, at \$5 per day-----	\$684, 375	
Less subsistence in kind, included in item 1--	68, 438	
		\$615, 937. 00
Losses by survey, ashore and afloat-----		519, 670. 00
Labor at navy yards, handling provisions-----		300, 000. 00
Total -----		16, 328, 838. 00

MAINTENANCE.

Mr. KELLEY. The next item is maintenance.

Mr. REED. The estimate is \$8,100,000.

Mr. KELLEY. That is what you are still asking for?

Mr. REED. We are still asking for that, for this reason, that while it shows an apparent reduction of 10 per cent from the appropriation this year, which was \$9,000,000, it is an actual reduction of 33½ per cent, for the reason that, due to the 5-day week, expenditures at the navy yards ran less this year than we had anticipated for items chargeable to this appropriation. When we found that there was a shortage in the appropriation for freight had become so acute that we transferred to maintenance all labor charges that we had been charging from the appropriation for freight. That involves a reduction of \$2,100,000 this year. We expect to continue charging that to maintenance, and to use the freight appropriation only for transportation charges.

Mr. KELLEY. If that were paid out of the freight item, this would be \$2,000,000 less?

Mr. REED. Yes, sir; but we have not, in asking for freight, made provision for sufficient funds. The tentative estimate under freight, which showed some labor charges, is necessarily subject to change on account of changed conditions.

CIVILIAN EMPLOYEES.

Mr. KELLEY. Under the head of labor you have clerks, stenographers, typists, inspectors, and messengers estimated at \$3,500,000; dock men, \$1,775,734; miscellaneous laborers, \$1,358,788; making a total for labor of \$6,614,522. Now, what about your clerical force? What are you paying this year for clerks, stenographers, typists, inspectors, and messengers?

Mr. REED. The total positions are now running just over \$3,500,000.

Mr. KELLEY. These are the clerks at the various yards and stations located outside of Washington, except the navy yard at Washington?

Mr. REED. Except the navy yard at Washington, and there are several field activities which are housed in the Navy Department Buildings, but which are a part of the Naval Establishment. It includes supply, disbursing, and accounting departments of the navy yards, and the cost-inspection service, property accounting, Navy disbursing, and Navy allotment offices.

INSPECTION COSTS.

Mr. KELLEY. With your inspection discontinued on the new construction, you must be able to make quite a cut there.

Mr. REED. There will be some reduction in the cost-inspection work on vessels under construction, but there will still be a considerable

able amount of work in connection with the accounts and is to be canceled. There will have to be other cost inspections of contracts that will be canceled, where we are not working on a cost-plus basis, but must inspect the contractor's books before making settlements. Therefore, the cost of the field-inspection force will be at least as large next year as at this time.

Admiral POTTER. I think the scrapping inspection will continue about two years. That was my experience on the compensation board and I think we will be wrestling with settlements for certainly a year and a half.

Mr. KELLEY. The only reason you think you can not make a reduction in the inspection force is the fear that it will require about as much inspection in the cancellation of contracts as you have now in the making?

Mr. REED. Yes, sir.

Admiral POTTER. I was told the other day by the chairman of the compensation board, who has given a lot of consideration to these things, that that work will be greatly increased for him.

Mr. KELLEY. We went into this item quite extensively last year. Did we cut you any?

Mr. REED. Very materially.

Mr. KELLEY. You are getting along with it very well, are you?

Mr. REED. No, sir; we have had trouble. The only thing that has run us through was the marked reduction in the navy yard work. The cessation of productive work at the navy yards aided us on this item materially.

Mr. KELLEY. If the conference had not come along, you would have had a deficiency?

Mr. REED. Yes, sir. I might say this in connection with it. In February, last year, the Appropriations Committee, or the defense subcommittee, was asked to give us authority to employ more people for the accounting work and the work of the navy yards, because the work had been running behind under the limitation prescribed. They refused to give it, and it was largely because of that failure to give additional help that the work ran behind and the deficiency of \$1,000,000 in construction and repair and engineering developed. The work was behind, and we did not know what was being spent. Without a further decrease in the appropriations, it will be found necessary to furnish information promptly and to furnish the information in detail to all the naval activities, in order that they can spend their money to the best advantage and not overspend their allotments.

Admiral POTTER. It is the money spent from this appropriation that enables us to muster a great deal of the information that we have been presenting to you here. While we assemble it here, it is based upon reports from the field. It is a very direct contribution to the information that we are able to lay before you. One of the things that makes necessary expenditures under this appropriation is the disposal of surplus stores. At each navy yard they are constantly inventorying, and nearly all of those charges are allocable to this appropriation. There is another point, Mr. Chairman: We are now revising our accounting system. We have got a completely new plan which is now being inaugurated, and that means additional work in the field and in the accounting offices. It increases the

y day, because we will furnish much additional information in rd to the Naval Establishment not hitherto furnished.

EMPLOYEES AT BROOKLYN YARD.

r. KELLEY. How many employees are you asking for next year at h Brooklyn?

r. REED. One hundred and eighty-five in the clerical group and stockmen, store men, checkers, and laborers.

r. KELLEY. That is a total of how many?

r. REED. Three hundred and fifty-six.

r. KELLEY. You have more there now than when you were here re?

r. REED. That was in the clerical group; it is now 185 in the cl group as against 314 last year.

r. KELLEY. Those two last year totaled 634, and what is the total ?

r. REED. Three hundred and fifty-six.

r. KELLEY. You do not think you can make any further reduction in either of those stations?

r. REED. Not to any appreciable extent. Where we can dispense the services of employees we are doing so, but the reports of work as they come in indicate that they are having difficulty in ing up. In the naval supply depot we had to authorize them to : in the supply department six days a week for three months in r to get up to date, as they had been running behind, and they ot entirely up as yet.

COST OF INSPECTION FOR 1922.

r. KELLEY. How does your cost inspection run this year?

r. REED. It is running about \$300,000 at the present time.

r. KELLEY. \$300,000 a year?

r. REED. Yes, sir.

lmiral POTTER. I think in 1921 it was nearly \$600,000.

r. KELLEY. Last year Mr. Reed said:

a cost inspection service is an entirely new proposition that we did not at that time, and that 90 per cent will amount to about \$1,000,000 at the it time.

that \$1,000,000 a year?

r. REED. Yes; that is what it was costing at the time of the ing.

r. KELLEY. And now it has dropped down to \$300,000?

r. REED. Yes, sir.

lmiral POTTER. It was about \$600,000 last year.

r. KELLEY. You think it will take about \$300,000 next year?

lmiral POTTER. Yes, sir; and I think it will continue at that rate ix months after this year, 18 months at least.

NUMBER AND PAY OF CIVILIAN EMPLOYEES AND WHERE STATIONED.

r. KELLEY. How many people would this carry—clerks, stenog-ers, typists, inspectors, and messengers?

r. REED. Two thousand six hundred and ninety-seven.

Mr. KELLEY. Have you a table showing where they are distributed?

Mr. REED. Yes, sir.

Mr. KELLEY. And the average would be 2,600 divided into sum?

Mr. REED. Yes, sir; that would be the average pay. I also have a summary like this showing the distribution of the clerical group by our activities generally.

Field employees paid from the appropriation "Maintenance, supplies, and accounts," 1922.

	Clerical.			Sem clerical.			Supply.		
	Num- ber.	Total daily pay.	Total annual pay.	Num- ber.	Total daily pay.	Total annual pay.	Num- ber.	Total daily pay.	Total annual pay.
Supply.....	969	\$5,548.12	\$1,442,511.20	351	\$1,258.20	\$327,132.00	814	\$3,495.50	\$900,000.00
Accounting.....	448	2,181.74	567,252.40	328	1,422.48	368,044.80			
Disbursing.....	143	716.40	186,264.00	25	105.60	27,435.00			
Miscellaneous.....	35	41.52	10,795.20	5	41.52	10,795.20	7	29.38	7,447.60
Property accounting.....	86		128,100.00				86		128,100.00
Disbursing.....	13		154,900.00						
Navy allotment.....	201		232,450.00						
Total.....	1,985		2,771,953.60	712		753,428.00	821		910,000.00

Mr. KELLEY. You have 1,985?

Mr. REED. And the other group. As to the people in that group under a ruling of the Civil Service Commission, we must charge them to the classified limitation after the 1st of July.

Mr. KELLEY. Will you please repeat that?

Mr. REED. Those people are now rated as calculating-machine operators, material checkers, etc., and under a ruling of the Civil Service Commission we must re-rate them in the clerical group and charge them to the classified limitation, so that the reason why we are asking for the continuation of the \$3,500,000 is so we can include the second group within the classified limitation.

Admiral POTTER. They have allowed us until the end of the next fiscal year to carry them into the clerical limitation group.

Mr. KELLEY. How many stock men and policemen have you?

Mr. REED. There are 821 altogether.

Mr. KELLEY. What is their average pay?

Mr. REED. Approximately \$1,100 per annum.

LABORERS.

Mr. KELLEY. You have an item entitled "Miscellaneous labor." How many have you?

Mr. REED. That is the unskilled labor engaged in handling and out of the storehouses, around the storehouses, and so on distinguished from the skilled ratings of checkers, store laborers, etc.

Mr. KELLEY. Do you think you will need as many next year?

Mr. REED. Yes, sir.

Mr. KELLEY. I presume that is because of the scrapping of ships.

Mr. REED. Yes, sir. The ships which will be decommissioned will turn in their stores; they have to be sorted and the stock disposed of to the best advantage, either through shipment to other ships for use or offered for sale.

Admiral POTTER. It is immensely important that the stores be sold as they come in, otherwise they accumulate and purchases might be made in consequence of not having the stock available for prompt use, so that if we keep the stores flowing it is an advantage every way.

Mr. REED. Unless we can keep our stock sorted and our records up, that we know what we have on hand, we would undoubtedly buy hundreds of thousands of dollars worth of materials that we had on hand, possibly in the same yard for which the purchases were made.

MATERIAL FOR ISSUE TO SHIPS AND OFFICE APPLIANCES.

Mr. KELLEY. The next item you have is material for use and under heading you have fuel, heat, light, and power in offices and stores, \$169,135, and office appliances, \$94,035. Do you need to buy any of these appliances during the coming year?

Mr. REED. The office-appliance end of it is largely the rental of tabulating machines we use in our accounting departments, as well as the cards and supplies that go with them. As far as purchases of additional typewriters and adding machines are concerned, they would practically be nil. That is one of the clauses we must carry because it might be necessary to purchase a particular item.

BOOKS, BLANKS, STATIONERY, ETC.

Mr. KELLEY. Books, blanks, and stationery, etc., \$157,040.

Mr. REED. We furnish all forms used for accounting purposes here and the stationery used in the supply departments.

Mr. KELLEY. These figures are based on your present expenditures, are they?

Mr. REED. No, sir; there is a reduction from the present expenditures for this purpose of nearly 25 per cent.

Mr. KELLEY. Packing boxes and materials, \$165,052.

Mr. REED. That is used in preparing the materials for shipment to fleet and other stations. We use the scrap materials that come as far as we can, but we do have to purchase new materials.

TRANSPORTATION—TRUCKS, LOCOMOTIVES, ETC.

Mr. KELLEY. The next heading is transportation—trucks, locomotives, cranes, etc. What is your explanation of that?

Mr. REED. We are charged at the industrial yards with a proportionate share of the expense of transporting supplies in and out to the right stations, and so on.

Mr. KELLEY. The amount of that item is \$60,750?

Mr. REED. Yes, sir.

INTERIOR FITTINGS, ETC.

Mr. KELLEY. Interior fittings—shelving, racks, lockers, bins, partitions, etc., \$104,750.

Mr. REED. That is an expenditure which is necessary for the care of the supplies we are getting in from ships, and so on, especially the ships going out of commission.

LABORATORY EQUIPMENT.

Mr. KELLEY. Laboratory equipment, \$7,090.

Mr. REED. That also includes supplies and is practically all supplies in our chemical laboratories, where we have to make use of steel, rubber, textiles, and other materials which we purchase.

TOLLS, FERRIAGE, ETC.

Mr. KELLEY. Tolls, ferriage, and miscellaneous, bridge ticket ferry tickets, and miscellaneous expenses of disbursing office \$156,425.

Mr. REED. That is for supply, accounting, and disbursing. They are various charges incurred on account of the shore stations and which are not chargeable to any of the headings above.

Mr. KELLEY. What do you mean by bridge tickets?

Mr. REED. We must have bridge tickets when we send employes or supplies across bridges. In some places we must pay toll.

Mr. KELLEY. That applies to your shore stations?

Mr. REED. Yes, sir. You will note that the bulk of our expenditure is ashore.

SHIPS' EQUIPMENT.

Mr. KELLEY. You have an item for expenses of ships' equipage.

Mr. REED. The expenses there are based on the ships which are proposed to keep in commission and on the usual replacement that is necessary in regard to items of equipage.

Mr. KELLEY. The amount is \$224,610?

Mr. REED. Yes, sir. There are three light cruisers going into commission and the equipage for them will have to be furnished from that amount.

Mr. KELLEY. What do you mean by equipage?

Mr. REED. Well, it would be the classes of material that the Bureau of Supplies and Accounts pays for—safes, adding machines, typewriters, and comptometers.

Mr. KELLEY. These are office supplies?

Mr. REED. Yes; the office end of it.

Admiral POTTER. And mess-room equipment?

Mr. REED. Yes, sir; silver, linen, etc.

Admiral POTTER. And we are charged with furnishing musical instruments for the bands, too. That is just an ancient custom.

Mr. REED. That is one of our inheritances from the abolishment of the Bureau of Equipment.

SUPPLIES.

Mr. KELLEY. You have an item of supplies totaling \$377,780.

Mr. REED. Those are based on the allowances to the ships of various classes of expenditure chargeable to our appropriation. As to the first four items an allotment is fixed for each type of ship and the amount required is based on the number of ships and the amount

authorized allowances. The removal of garbage and ashes is necessary at ports where we have no garbage or ash lighters and they are not allowed to throw the garbage and ashes overboard in the harbor.

KELLEY. That makes a grand total of \$8,131,189 against \$9,000,000 this year.

REED. \$9,000,000. As I say, we have assumed charges formerly otherwise amounting to approximately \$2,100,000.

NAVAL SUPPLY ACCOUNT.

KELLEY. How much money have you in the naval supply account?

REED. \$253,000,000 or \$254,000,000.

KELLEY. How much of that is cash?

REED. We have about \$7,000,000 standing to our credit on the books of the Treasury, but as against that there are outstanding obligations for the delivery of supplies which will be coming along amounting to about \$32,000,000; at the same time, as those supplies are being delivered there will be issues, so that credits will accrue to the fund.

KELLEY. What reason is there for keeping that fund so large?

REED. We believe ourselves that it ought to be about \$90,000,000.

PROCEEDS FROM SALE OF SURPLUS PROPERTY.

KELLEY. How would you suggest it could be brought down?

REED. I would suggest that we continue doing as we are doing, namely, selling undesirable stock. I mean, stock not suitable for naval purposes, and as rapidly as the market permits, so that that thing will work out so far as undesirable stock is concerned.

KELLEY. When you sell stock that you do not need for naval purposes the money goes in the Treasury to the credit of this fund.

REED. No, sir; it goes to miscellaneous receipts.

VINING. When material is declared surplus and it is sold as is the receipts go into the miscellaneous receipts.

REED. So the Comptroller General has recently informed us, though we did not know that until recently.

REED. Under the Comptroller General's recent ruling the matter will gradually take care of itself.

KELLEY. Suppose you had an article that was carried in the supply account at a certain figure, it was declared surplus by the Navy Department and sold at half that figure, how would you straighten that out on your books?

REED. We would charge it off as a loss in the capital account.

KELLEY. So it requires no legislation?

REED. No, sir; we have authority to charge off that loss.

KELLEY. When did you get that authority?

REED. In the act of March 1, 1921.

REED. At one time this account ran over \$300,000,000, but are now down to \$255,000,000.

Mr. KELLEY. When you sell to the Navy Department, why can this same principle apply and have the money go into the Treasury and bring your fund down in that way?

Admiral POTTER. The Navy only buys desirable stock, so wants to use, and if half of that each time went into the Treasury there would be a constant diminution of the available liquid ; and by and by we would not have any money with which to buy thing new.

Mr. KELLEY. Suppose you dropped it down to \$150,000,000.

Admiral POTTER. Our effort would be to sell the undesirable and keep in stock about \$150,000,000 worth of live stock, and that is what we are trying to do now.

Mr. BYRNES. Have you \$100,000,000 worth of stock that you can sell?

Admiral POTTER. Yes, sir.

Mr. BYRNES. In order to reduce it to \$150,000,000?

Admiral POTTER. Yes, sir. We are taking a new inventory with a view of establishing that, and we have doing that since the first part of November. We did have inventories before that, but we are taking an elaborate new inventory.

Mr. BYRNES. What constitutes the greater part of that—I mean the \$100,000,000 you would like to sell in order to reduce your fund?

Secretary DENBY. He would not actually get \$100,000,000.

Mr. BYRNES. No; but it would enable him to reduce his account in the manner he has described.

Mr. REED. The inventory work and the work in connection with picking out the material which should be disposed of is one of the things that is costing us money in the Navy.

KIND OF MATERIAL ON HAND.

Mr. BYRNES. You have such an inventory now?

Mr. REED. We have had an inventory, but it has been necessary to retake it, because inaccuracies have been found in some of it by the way the materials were stored, and also to revise the amount reported surplus during the past two years; in some cases it has been found that we had more on hand that could be disposed of and in other cases unexpected demands came up which made a lesser quantity available. So that work is being gone over all the time in order to keep the information current.

Admiral POTTER. I had a special note as to some of these items. I can give you some of them without the note. We have an enormous quantity of copper that we do not think we will need; it is perfectly good stuff, but we are only holding it now because we do not find a market is good.

Mr. BYRNES. You have no market for it at all?

Admiral POTTER. Not a good enough market. We have spare machinery parts—bolts, nuts, rivets, and washers; we even have a lot of spare hemp; it is perfectly good hemp, but there is not much of it; we have canvas and canvas equipage; blocks and wreck necessities; we have all kinds of heavy metal.

Mr. BYRNES. It is scattered all over the country?

Admiral POTTER. Yes; but there is far more of it at the naval supply depot in New York than anywhere else; there is also a considerable quantity at Boston and Hampton Roads. Those three places, perhaps, have the most.

Mr. BYRNES. I think you should have the right to sell it as freely as you can, but there are some things for which there is a very poor market at the present time.

Admiral POTTER. We are selling just now a little less than \$600,000 each a month, but we did much better than that for over a year during the war. The total amount sold has been \$113,000,000, but at the present time it runs pretty close to \$600,000 a month.

Mr. OLIVER. What percentage of the original cost are you realizing?

Admiral POTTER. We are now recovering about 27 per cent; for a long time we recovered almost 50 per cent, a very high return, but it is not so now. If we average 30 per cent when we have finished we will do extremely well.

Mr. KELLEY. Your purchases are mainly for the Bureau of Ordnance. Do they purchase from you?

Admiral POTTER. From the naval supply fund, you mean?

Mr. KELLEY. Yes.

Admiral POTTER. No, sir. They usually buy with their own appropriations.

Mr. KELLEY. And their funds are not tied up in this at all?

Admiral POTTER. No, sir. However, there is about \$400,000,000 worth of ordnance that we are carrying on our books, but it does not enter into this fund at all. We are carrying it on our books, but it does not enter into this fund.

Mr. KELLEY. How do they carry that? Do they own it?

Mr. REED. The Navy does. It was purchased out of ordnance appropriations and was never in the naval supply account.

Mr. KELLEY. Do you have that much material on hand?

Mr. REED. Yes, sir.

Mr. KELLEY. \$400,000,000 worth?

Mr. REED. Yes, sir.

Mr. KELLEY. What sort of material is it?

Admiral POTTER. Admiral McVay is here and he can tell you.

Mr. KELLEY. What sort of material is it, Admiral?

Admiral McVAY. Guns, ammunition, torpedoes, and finished technical ordnance material.

Mr. KELLEY. It is not raw material?

Admiral McVAY. It is not the material you are talking about; it is shed technical ordnance material.

Mr. KELLEY. Does this include your reserve stock of guns?

Admiral McVAY. Yes, and reserve stock of ammunition.

Mr. KELLEY. And reserve stock of torpedoes?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And any other material you might have on hand?

Admiral McVAY. Any technical ordnance material.

Mr. BYRNES. It includes everything except that which is on board ship?

Admiral McVAY. Yes, sir.

Admiral POTTER. The largest single item is reserve ammunition, \$8,000,000.

Mr. KELLEY. Are you selling surplus stock?

Admiral McVAY. Not yet, sir.

Mr. KELLEY. Have you any for sale?

Admiral McVAY. Not at the present time, but we expect to have.

Mr. KELLEY. How much did you sell last year, if any?

Admiral McVAY. I do not know how much we sold last year.

Mr. KELLEY. Have you looked into this, Admiral Coontz, being the Budget officer of the Navy, to see how much these stocks could be reduced and the money turned into the Treasury?

Admiral COONTZ. I have paid particular attention to the naval supply account, to the sale of ships, and everything of that character, as being the quickest to get rid of.

I have not gone into the question of the ordnance material, because I knew that most of that was manufactured, and it would be a little delicate to dispose of certain kinds of it after the treaty.

REDUCTION OF NAVAL SUPPLY ACCOUNT.

Mr. KELLEY. What would be your recommendation about this naval supply account, Admiral?

Admiral COONTZ. My recommendation is to reduce it to \$150,000,000 reducing it slowly but gradually to the best interests of the Government. Whether that should be done by half and half I would be to trust to the judgment of Admiral Potter, but I think it should slowly brought down to \$150,000,000, with its conversion into Treasury cash.

Mr. KELLEY. How much was it before the war?

Admiral POTTER. About \$72,000,000 or \$73,000,000.

Mr. KELLEY. Would not \$100,000,000 be all that you would need for material? What would be the ratio between material and personnel in the way of money?

Admiral POTTER. I do not think I am prepared to say. We arrive at the \$150,000,000 roughly along these lines. The amount of purchases of material from those appropriations, as shown by a number of years' past experience, has been from \$72,000,000 to \$75,000,000 a year.

Mr. KELLEY. This would give you two years?

Admiral POTTER. That was our idea precisely.

Mr. KELLEY. What is the principle running through the minds of you officers, that you should have a two years' stock of everything?

Admiral POTTER. That is what we have now. Lately, in order to expend as little money as possible, make as few purchases as possible, we have cut it down very much, and we do not make purchases more than a six months' supply on the east coast and a nine months supply on the west coast.

Mr. KELLEY. Do you know of any special reason why it should be reduced another \$50,000,000 under what you suggest?

Admiral COONTZ. Yes, sir. We went into it very deeply, and thought after the first crack that it could not be brought below \$150,000,000, and it ought to be brought down slowly. Within the past year the Secretary has considered and directed—as has been brought out here to-day—the depletion of war stocks right straight along, and I should advise against making that figure at present less than \$150,000,000. Later on we might.

Admiral POTTER. The time is not yet ripe.

Mr. KELLEY. Would your recommendation coincide with Admiral ter's, that the reduction should be made only from the sale of plus stock?

Admiral COONTZ. That is the best way. The other way would be a certain percentage from the sales, but he does not believe we can do that, and I agree with his judgment. He ought to know how it can be done. It is a matter of experiment to bring it down as quickly as we can for the economic condition of the Government and the same time get all the money into the Treasury as quickly as can.

Mr. KELLEY. Of course, his method would have this effect, that it would take out the deadwood first and then you would know exactly what valuable stock to carry and have on hand?

Admiral POTTER. That is the only stuff that the bureaus will draw, really.

Mr. KELLEY. And after you knew that you could further reduce it?

Admiral COONTZ. You could see what your turnover of good stock

Mr. KELLEY. Otherwise, if you reduced it from sales, you would reduce it very quickly to \$150,000,000?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You will find of that \$150,000,000 quite a large percentage of it was very much depreciated?

Admiral COONTZ. Yes, sir.

Admiral POTTER. I would let go any part of it in a minute that we not find we had need for. There is nothing for the Navy in hold-onto this stock—it is only a horrible nuisance.

CLOTHING AND SMALL STORES.

Mr. KELLEY. The next item is on page 90, clothing and small stores, which you are not asking any money this year?

Mr. REED. No, sir.

Mr. KELLEY. You simply want the same language that you had before?

Mr. REED. Yes, sir.

Mr. KELLEY. How much of a supply of clothing have you?

Mr. REED. Since we have reduced the price the value of material on hand is about \$37,000,000.

Mr. KELLEY. You do not need but three or four million dollars a year?

Admiral POTTER. Three or four million dollars a year for issues, to go away to newly enlisted men. But we sell about \$7,500,000 to enlisted men. I think that could be reduced.

Mr. KELLEY. To about \$5,000,000 altogether?

Mr. REED. Yes, sir; the issues for next year.

Mr. KELLEY. So you have clothing to last you for four or five years. Suppose that is clothing that you can not sell?

Admiral POTTER. We sell undershirts and the law lets us sell such things as overcoats when we remove certain distinguishing devices, we sell quite a good deal of cloth.

Mr. BYRNES. What is the value of the stock you have on hand?

Admiral POTTER. About \$37,000,000.

Mr. BYRNES. How many years will that supply you?

Admiral POTTER. Of course, it depends on the number.

Mr. BYRNES. Assuming the Navy at 65,000 men for the figure.

Mr. REED. Between four and five years' stock. Of items we are overstocked and in others we are short.

Admiral POTTER. I would estimate a little more than

Mr. KELLEY. It would last longer than that, because

Admiral POTTER. Between seven and eight years.

Mr. BYRNES. You have to make purchases of certain suppose you have enough to last six or seven years?

Admiral POTTER. Practically.

Mr. BYRNES. Is it an economical thing to do, to keep selling it?

Admiral POTTER. We sell quite a good deal, but it is that we will not use for many years. The great bulk

Mr. BYRNES. And represents over \$6,600,000?

Admiral POTTER. Yes, sir.

Mr. BYRNES. You estimate on using \$7,500,000 next

Admiral POTTER. Yes, sir.

Mr. KELLEY. But you intend to replace that?

Mr. REED. \$1,500,000 will be issued under the enlistment. Repurchases for replacement only will be

Mr. KELLEY. The money will be held in the fund?

Mr. REED. Yes, sir.

Mr. BYRNES. Under this item you have a stock of \$35 approximately.

Mr. REED. Yes, sir.

Mr. BYRNES. And under the authority here given you the men clothing to the amount of \$7,500,000?

Mr. REED. Yes, sir; about.

Mr. BYRNES. That is your estimate?

Mr. REED. Yes, sir.

Mr. BYRNES. That amount of money paid to you by covered into the Treasury but by law is made by the department?

Mr. REED. For the procurement of more clothing for men to men as needed.

Mr. BYRNES. When you purchase the clothing, you will all the stock on hand?

Mr. REED. If we bought as rapidly as we issued, they remain at \$35,000,000.

Mr. BYRNES. How much do you estimate you will

Admiral POTTER. We probably will not buy \$5,000

Mr. BYRNES. The \$2,500,000—what becomes of

Admiral POTTER. That will be in the Treasury to the Navy Department.

Mr. BYRNES. But in no case is there a reduction in which permits any money to go back to the Treasury of miscellaneous receipts?

Mr. REED. To this extent, that beginning with the appropriation bill carried a provision that

be issued to the men without reimbursement to the cloth-
The bill before that carried an appropriation to pay for
outfit of \$100, and during the fiscal year \$5,600,000 was
outfits to first-enlistment men for which we received no
ent. During the first six months of this year, 1922, the
war reported for outfits on first enlistment have been about
There has been very little recruiting. There is \$600,000
that has been issued for which we have obtained no re-
t.

YES. It reduces it only to the extent that you authorized
without requiring payment?

. Yes, sir; that is it.

YES. But, as I understand, under this item you will get
500,000?

. If we issue that amount of clothing, it will be turned
casualty.

YES. To the credit of this account?

. To the credit of the Navy.

ER. In other words, it is a trust fund in the hands of the
subject to your draft for the replenishing of the stock?

. Yes, sir.

ER. How much have you now to your credit on which you
need to draw in cash?

. On the 30th of June, \$388,000 in cash. Last year we
obligation on the fund of some millions of dollars, which
taken care of in the recent deficiency bill.

EX. This fund could probably be reduced to some \$20,-
without doing any damage?

. Yes, sir.

EX. And as you sell the surplus of clothing we can pro-
ceed money from the sales shall go to the Treasury until this
\$20,000,000?

POTTER. You would not want to do that, because we would
liquid capital in the Treasury to draw against.

EX. That is true; you would have to have some.

something like \$15,000,000 or \$20,000,000 which could be

POTTER. Eventually.

EX. From this fund simply by giving you a little leeway
odd articles that you do not carry in stock.

POTTER. Until I have had a chance to make necessary cal-
would prefer not to give an estimate of the percentage of
might be turned into the Treasury.

COONTZ. This matter has been given careful thought by
my and his counsel, and all with the idea that as fast as we
could reduce it and get the money into the Treasury.

EX. Of course, you can not reduce it and get the money
casualty unless some provision is made for it?

COONTZ. Yes, sir.

EMPLOYEES IN BUREAU OF SUPPLIES AND ACCOUNTS IN WASHINGTON.

EX. Under maintenance, Bureau of Supplies and Ac-
have carried, as I recollect, provision for your force in
?

shall be issued to the men without reimbursement to the clothing fund. The bill before that carried an appropriation to pay for initial outfit of \$100, and during the fiscal year \$5,600,000 was for outfits to first-enlistment men for which we received no reimbursement. During the first six months of this year, 1922, the figures so far reported for outfits on first enlistment have been about \$600,000. There has been very little recruiting. There is \$600,000 of clothing that has been issued for which we have obtained no reimbursement.

. BYRNES. It reduces it only to the extent that you authorized issuance without requiring payment?

. REED. Yes, sir; that is it.

. BYRNES. But, as I understand, under this item you will get over \$500,000?

. REED. If we issue that amount of clothing, it will be turned over to the Treasury.

. BYRNES. To the credit of this account?

. REED. To the credit of the Navy.

. OLIVER. In other words, it is a trust fund in the hands of the Navy subject to your draft for the replenishing of the stock?

. REED. Yes, sir.

. OLIVER. How much have you now to your credit on which you are authorized to draw in cash?

. REED. On the 30th of June, \$388,000 in cash. Last year we had an overobligation on the fund of some millions of dollars, which is now being taken care of in the recent deficiency bill.

MR. KELLEY. This fund could probably be reduced to some \$20,000 without doing any damage?

. REED. Yes, sir.

. KELLEY. And as you sell the surplus of clothing we can provide that the money from the sales shall go to the Treasury until this fund reaches \$20,000,000?

ADMIRAL POTTER. You would not want to do that, because we would have no liquid capital in the Treasury to draw against.

. KELLEY. That is true; you would have to have some.

There is something like \$15,000,000 or \$20,000,000 which could be used.

ADMIRAL POTTER. Eventually.

MR. KELLEY. From this fund simply by giving you a little leeway to purchase odd articles that you do not carry in stock.

ADMIRAL POTTER. Until I have had a chance to make necessary calculations, I would prefer not to give an estimate of the percentage of sales that might be turned into the Treasury.

ADMIRAL COONTZ. This matter has been given careful thought by the Secretary and his counsel, and all with the idea that as fast as we can we would reduce it and get the money into the Treasury.

. KELLEY. Of course, you can not reduce it and get the money into the Treasury unless some provision is made for it?

ADMIRAL COONTZ. Yes, sir.

ITALIAN EMPLOYEES IN BUREAU OF SUPPLIES AND ACCOUNTS IN WASHINGTON.

MR. KELLEY. Under maintenance, Bureau of Supplies and Accounts, you have carried, as I recollect, provision for your force in Washington?

Mr. REED. Yes, sir.

Mr. KELLEY. The allotment office, the disbursing office, and property accounting office?

Mr. REED. Yes, sir.

Mr. KELLEY. Those three aggregated \$538,340 on February 1?

Mr. REED. Yes, sir.

Mr. KELLEY. Can not we take that sum out of your maintenance for Supplies and Accounts and put it over in the part of the bill which formerly was carried by the legislative bill?

Mr. REED. There is absolutely no objection to that—the transfer of funds. That would mean a reduction under maintenance and a corresponding increase under salaries, Bureau of Supplies and Accounts.

Mr. KELLEY. What portion of the \$265,950 for the allotment office as now employed there will you need for this year?

Mr. REED. \$163,350.

Mr. KELLEY. What portion for the disbursing office?

Mr. REED. \$141,790.

Mr. KELLEY. How much for the property accounting office?

Mr. REED. \$125,600 in lieu of the \$130,600.

Mr. KELLEY. To be distributed according to the statement submitted by the Secretary on the 14th of February?

Mr. REED. Yes, sir.

Mr. KELLEY. Are there any other employees in Washington from other appropriations?

Mr. REED. Not in the Bureau of Supplies and Accounts or in any of its appropriations.

STATUTORY EMPLOYEES, SALARIES OF.

Mr. KELLEY. On page 94 the item "Salaries, Navy Department" is for the Bureau of Supplies and Accounts?

Mr. REED. Yes, sir.

Mr. KELLEY. You have indicated some changes in your salary roll?

Mr. REED. Yes, sir.

Mr. KELLEY. The first item on the salary roll is the civilian assistant for whom you are asking an increase of salary from \$2,250 to \$3,250?

Mr. REED. Yes, sir.

Mr. KELLEY. The Committee on Appropriations is not increasing any salaries. Then, you are asking for an increase in a number of positions and a decrease in others?

Mr. REED. That is because we are carrying on our rolls a present time one clerk at \$1,600, detailed to duty in the Secretary's office. That position has been taken up on the rolls of the Secretary's office. There is one of our clerks who is carried on the Secretary's roll.

Mr. KELLEY. There is one clerk on the Secretary's roll who has been brought back?

Mr. REED. Yes, sir.

Mr. KELLEY. Just a swap?

Mr. REED. Yes, sir; and to straighten out the appropriations in the present distribution.

Mr. KELLEY. It is not an increase in the total number of employees?

Mr. REED. No, sir.

Mr. KELLEY. You propose to drop out 19?

Mr. REED. Yes, sir; one of those is transferred to the Secretary's. The other 18 we propose to drop out—a reduction in the force of this year's appropriation.

Mr. KELLEY. Then you ask for five assistant messengers instead of 19?

Mr. REED. That is to provide for the pay on our roll of a messenger now carried on the roll of the Secretary's office.

Mr. KELLEY. That is another swap?

Mr. REED. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. For temporary employees in the Bureau of Supplies Accounts you are asking for \$245,520 and you have this year \$200,000?

Mr. REED. Yes, sir; we have made a decrease of \$18,000 on the statutory roll and a decrease of \$5,000 on the lump-sum roll, a total decrease of \$23,000 in the appropriation from this year's authorization.

Mr. KELLEY. How many clerks are carried on this temporary roll?

Mr. REED. We have 170 at the present time.

Mr. KELLEY. How about next year?

Mr. REED. We have cut out \$23,000, and so our salary appropriation will represent a decrease of over 10 per cent from what we had this year.

Mr. KELLEY. How many employees did you cut off?

Mr. REED. We dropped 18 positions.

Mr. BYRNES. In this list you drop 11 positions and you are now going to drop 7 more?

Mr. REED. The appropriation on the 1st of November was overestimated. On the 1st of November we had 188 positions at an appropriation of \$260,000. We are making a decrease. We have more employees than we could carry throughout the year, so we are asking for 177 at \$245,000 as against 188 that we had on the 1st of November. From the lump-sum appropriation we drop 11 that we had at that time and we drop 18 from the statutory roll.

Mr. KELLEY. You will have to keep track of all the contract suspensions and cancellations?

Mr. POTTER. Yes, sir; and the settlements. The bureaus will make more demands upon us. We give them more complete data month to month and we expect to continue to do that. Our salaries will certainly increase, if anything.

Mr. KELLEY. You have here in the limitation an increase evidently in salary, one at \$4,000 raised to \$5,000?

Mr. REED. Yes, sir. The one at \$5,000 instead of \$4,000 is intended to bring back on the bureau roll an employee now in the property accounting office. So, if the salaries are combined as you suggest, it will not involve an increase there.

Mr. KELLEY. This particular employee is now getting this sum of money?

Mr. REED. Yes, sir.

Mr. KELLEY. It is only a transfer from one roll to another?

Admiral POTTER. That particular employee bears a responsibility not borne by many people in the entire : 100.

Mr. KELLEY. I do not think it would be amiss to a that employee?

Admiral POTTER. Mr. Clyde Reed, Mr. Kelley.

Mr. REED. That represents a reduction from two to one transferred to the Secretary's office, he being on detail there.

Mr. BRYNES. There is no increase there?

Mr. REED. No, sir; that is a decrease of one position in the office of Supplies and Accounts, and an increase of one in the Sec office.

Mr. KELLEY. Who is this?

Mr. REED. That is the chief of the appointment division on our rolls at \$3,000.

Mr. KELLEY. His is now carried on what roll?

Mr. REED. On our roll. We are taking off one \$3,000, ing one at \$3,000 to the Secretary's office by trans from the of Supplies and Accounts. We are now carryi l of the Bureau of Supplies and Accounts. He is appointment division.

Mr. KELLEY. You are transferring one to the Secretary's and you are asking that the other be retained?

Mr. REED. Yes, sir.

Mr. BRYNES. There is one at \$2,500 and one at \$3,000. remains at the same salary?

Mr. REED. Yes, sir.

FREIGHT.

Mr. KELLEY. The next item is freight.

Admiral POTTER. The estimate for freight \$5,000,000. Whether we can get through on that, We will, of course, make every effort to do if y it. We went to work on this basis: We c le: our ence and made a sort of mental allowance : activities at all except a limited number of y us. v right, or not, remains to be seen. We then l transport this year 280,000 tons of freight in l. Of t the west coast will go 200,000 tons and t carry 80,000 tons. Of the 200,000 tons that v ported to the other coast, we expect to carry 50,000 to ment conveyance. That is fairly accurate, l vessels that we are informed will likely be a to send by commercial water shipment to t tons, and by commercial rail shipment to the The water movement to the west coast will e as we can hit an average on the different c ton. That is to say, 135,000 tons by water will amount to \$3,375,000. The rail shi u ton, and 35,000 tons by rail shipment to t ton will equal \$1,505,000.

Some of the 80,000 tons that we expect to tr Atlantic coast will be by water and some by l. l to give an accurate average there, because tl stances. We have arrived at a mixed rate, for of \$8 per ton, making \$640,000. The total : r work out in the way we have estimated, woi

Mr. KELLEY. And you make your estimate \$5,000,000, in round numbers?

MIRAL POTTER. Yes, sir.

Mr. KELLEY. How much do you have this year?

MIRAL POTTER. This year we have had altogether, counting what allowed us the other day, \$5,600,000. It was first \$4,000,000, and asked \$2,000,000 more. You allowed us \$1,600,000 more, or \$5,600,000 in all, for 1922.

Mr. KELLEY. The freight next year might be more or less, depending upon how you gathered your stuff together after you have packed it.

MIRAL POTTER. That is an important feature.

Mr. KELLEY. You did not try to work it out upon the basis I suggested the other day?

MIRAL POTTER. We gave earnest consideration to that. We thought that the proper thing to do for this year would be in the case of purchases east of the Mississippi River, to purchase f. o. b. delivered, and for purchases west of the Mississippi, where there is so much of land-grant railroad rates, to purchase f. o. b. the point of origin, unless for some special reason it should be purchased otherwise.

Then, of course, the bill of lading would apply from point of origin. We thought that would probably be the best way. I talked with the chairman of the Federal Traffic Board, who is an officer of the Supply Corps of the Navy, appointed by the Director of the Bureau of Budget, and he is very strong for making purchases f. o. b. the point of origin for shipments west of the Mississippi in order to take advantage of the land-grant rates. There will be a very substantial saving on account of the land-grant rates, and he is very strong for

Mr. KELLEY. That would make a perfectly clear line of demarcation so that you could figure it with some accuracy.

MIRAL POTTER. Yes, sir. It is hoped that eventually there will be a general freight appropriation for each department—not for all departments, but for each department.

Mr. KELLEY. The fact is that if you included in your cost the freight on any article, this sum could be made almost any sum—that is, down to the actual amount necessary to pay the freight on Government property transferred from one place to another.

MIRAL POTTER. I do not understand that.

Mr. KELLEY. Let us get at it this way: When you buy any property for the Government, whether food or any other supplies, and when you make your contract with the price at the point where you want it delivered, in all such cases you include the freight in your cost?

MIRAL POTTER. Yes, sir.

Mr. KELLEY. Now, if you made all of your contracts that way, the only freight provision you would need would be sufficient money to pay the freight on property owned by the Government that had been transferred from one place to another?

MIRAL POTTER. Yes, sir.

Mr. KELLEY. You propose to put that system into effect east of the Mississippi River but not west of the Mississippi River?

MIRAL POTTER. Yes, sir.

Mr. KELLEY. It will make a rule upon which you can make your estimate for freight in the future.

Mr. REED. Yes, sir; unless there existing law. We might purchase goods had no money to pay the transportation would have to make a contract for goods.

Mr. BYRNES. You would have the provide for the delivery of the material.

Mr. REED. The Government, however account of land-grant rates.

Mr. KELLEY. But there need never long as we make an appropriation for on commodities already in the possession are to be shipped from one point to another.

Admiral POTTER. That is sound in.

Mr. KELLEY. I think you are to be the situation at all and for simply to though there is no difference in the the land-grant rates. How do you compare

Admiral POTTER. By order of the all freight movements now must first Supplies and Accounts before they shipments and emergency shipments of passengers and the actual classification and routing procedure in itself prevents the railroads and from making improper classification applies to shipments of two carload lots only one carload lot it goes through the

Mr. KELLEY. Do you pay freight audit?

Admiral POTTER. We pay them per Office audit, but we give them an advance pay no freight bills in the field. They and we make the claim that we have bill auditors as exists, and the Bureau enough to say the same thing about it bills that are in dispute. If there is road department that is disputed either selves we strike that out and they pay. Then we pay the bill which we agree over to the General Accounting Office, departments of the Government, if they a bill, refuse payment of the whole bill eral Accounting Office. Of course, it on the part of the railroads, because of settlement for six months or a year.

Commander C. G. Mayo, of the Supreme man of the Federal Traffic Board. President after General Dawes, the Department through the different departments an efficient payment method was the one department. Since the last week in November over two-carload lot shipments to the that office has directed the routing has classified and routed up to this time

and they have prevented the overexpenditure of more than \$1,000,000 this year.

KELLEY. When you get your bills in your own accounting provisionally at least, that office approves them, and you pay on that audit?

SIRAL POTTER. Yes; we approve, disapprove, or modify, and pay.

KELLEY. Then when they are paid by you, the bills go to the General Accounting Office?

SIRAL POTTER. That is correct.

KELLEY. And that office may disapprove something which you have paid?

SIRAL POTTER. Yes, sir.

KELLEY. How often does that occur?

SIRAL POTTER. It very seldom occurs with us. During the last six months the total amount disapproved by the General Accounting Office has been only \$600. On the other hand, we have needed corrections in amounts allowed by the General Accounting Office of about \$2,500. Of course, there is no money lost if inadvertent payment should be made, because it is easily reimbursed from a railroad which is doing a going business; we simply add it from the next bill.

KELLEY. Suppose the bills were passed through your office to the General Accounting Office without payment by you at all and audited them, would that do away with some 50 or 60 clerks in your department?

SIRAL POTTER. I do not know about the exact figures.

KELLEY. If you did away with them there, would it require the elimination of others in the other office?

SIRAL POTTER. I assume it would, decidedly. I do not know what number, 58, specifically applies to our railroad bills settlement. However, that is an office which must continue anyway, because a large part of all the money spent for the Navy is paid to this office, called the Navy disbursing office, and that office has to run. I would like to verify your estimate of the number of clerks employed in the freight and passenger sections of the disbursing office.

KELLEY. No doubt you are following the statute now?

SIRAL POTTER. Absolutely.

KELLEY. Which provides that before these bills are paid you must make an audit?

SIRAL POTTER. Yes, sir.

KELLEY. And satisfy yourselves as to their correctness?

SIRAL POTTER. Yes, sir.

KELLEY. But occasionally there would be some bills that the General Accounting Office would return to you with instructions to refund some of the money that has been paid?

SIRAL POTTER. That happens, but I do not remember any specifically at this time.

KELLEY. It does seem as though bills were gone over twice in the year, audited once by your office and then audited by the General Accounting Office, and that one might be eliminated.

Mr. REED. Yes, sir; unless there was some modification of existing law. We might purchase goods f. o. b. the mill, but if had no money to pay the transportation charges out of freight would have to make a contract providing for the delivery of goods.

Mr. BYRNES. You would have the contract amended so as to provide for the delivery of the material where you wanted it.

Mr. REED. The Government, however, might lose money then account of land-grant rates.

Mr. KELLEY. But there need never be a deficiency in freight as long as we make an appropriation large enough to pay the freight on commodities already in the possession of the Government are to be shipped from one point to another.

Admiral POTTER. That is sound in theory; yes, sir.

Mr. KELLEY. I think you are to be congratulated on not straining the situation at all and for simply taking the law as it stands though there is no difference in the end, unless it be in the case of the land-grant rates. How do you check up freight bills?

Admiral POTTER. By order of the present Secretary of the Navy all freight movements now must first be referred to the Bureau of Supplies and Accounts before they are made, except medical supplies and emergency shipments of provisions. They come in under the actual classification and routing are written into it. The procedure in itself prevents the railroads from routing improperly and from making improper classifications. What I have just said applies to shipments of two carload lots or more. If a shipment is only one carload lot it goes through without ceremony.

Mr. KELLEY. Do you pay freight bills prior to the Government audit?

Admiral POTTER. We pay them prior to the General Accounting Office audit, but we give them an administrative audit ourselves. We pay no freight bills in the field. They are sent in to Washington and we make the claim that we have as expert a group of railroad bill auditors as exists, and the Bureau of the Budget has been good enough to say the same thing about it. We pay bills, but we pay bills that are in dispute. If there is any point in the bill of a railroad department that is disputed either by the railroad or by ourselves we strike that out and they have to submit two new bills. Then we pay the bill which we agree is correct and send the rest over to the General Accounting Office. I understand that some departments of the Government, if there is anything contentious in a bill, refuse payment of the whole bill, and then send it to the General Accounting Office. Of course, that gives rise to some problem on the part of the railroads, because that means the postponement of settlement for six months or a year.

Commander C. G. Mayo, of the Supply Corps of the Navy, is now a member of the Federal Traffic Board. He was so appointed last year. President after General Dawes, the Director of the Budget, has been through the different departments and had observed that the most efficient payment method was the one then existing in the Navy Department. Since the last week in November they have referred over two-carload lot shipments to office I refer to. As a result that office has directed the routing and classification. That has classified and routed up to this time something like 20,000

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Admiral POTTER. There is a point in that theory, however, which is erroneous, namely, that the Accounting Office, of course, should not pay bills and then be its own auditors. They should not be disbursers of money and at the same time be their own auditors. That is certainly an erroneous principle if it be followed. If they have an office which pays bills they cease, properly speaking, from being an accounting office, but they are no doubt within the law.

The principle of a completed examination of an account prior to payment by a disbursing officer of the Government, and the audit of the Navy disbursing officer's payment by an accounting officer other than the one with which the disbursing officer is connected, has been accepted and has been in operation since the establishment of the Government, and this principle should apply with as much force to one class of accounts as to another. The contention that owing to the difficulty in checking transportation accounts, it would be advisable to eliminate the Navy disbursing officer's examination is believed to be poorly founded. On the contrary, the proper view is that the more difficult the account, the more likelihood of error therein and the more reason for adhering to the principle used in connection with other accounts.

Records are available which show that the principle of an audit by the Navy disbursing officer prior to the payment of the transportation account has resulted in some saving to the Government by the Navy Department. In some cases additional amounts have been paid by the Treasury to carriers over and above the amount paid by the disbursing officer of the Navy when the final audit was made. The Navy disbursing officer upon receiving information as to this additional allowance, and having knowledge of certain administrative features surrounding the original payment, has been able to effect refunds from the carriers. If he were deprived of the opportunity of making a verification of the amounts payable, the administrative departments of the Government would be in no position to know whether the amounts paid and chargeable to their appropriations were just. The administrative departments of the Government are primarily charged with accurate disbursement of appropriation and it is not deemed proper that exceptions should be made in the matter of transportation accounts. Government transportation accounts should be checked in their entirety before payment, and the General Accounting Office should make a complete audit of these transactions; this final audit after payment would entail no delay in the payment of the accounts and carriers would thus have no cause for complaint.

The highly technical duties involved in the checking of transportation accounts, particularly Government accounts which involve land-grant features, as conducted in the Navy disbursing office, are quite similar in principle to the method used by transportation companies. With such companies it is the universal practice for destination agents to make careful check of transportation bills before requiring payment from consignees, after which the bills are transmitted to the carriers' general accounting office, where an independent check from an entirely different file of tariffs is effected. This double check of rates on the carriers' part obviates innumerable overcharges and precludes a large number of claims.

information derived by the Navy disbursing officer in the execution of transportation accounts prior to payment is invaluable in connection with the economical operation of the Bureau of Supplies and Accounts of the Navy. The data is absolutely essential in connection with purchases bought on f. o. b. point of manufacture and in connection with sales of salvaged and other materials on f. o. b. point of manufacture basis. If this force of clerks is not available for determining this information, the purchasing officer would be in no position to properly award contracts, without accurate information on which to base estimates in regard to amount of freight charges, which is a factor in determining costs. This is especially true in connection with purchases that are made in the field, the field activities having no rate clerks and no information in connection with freight charges must be obtained from the Bureau of Supplies and Accounts in Washington.

There is serious objection to the principle of any disbursing officer's examination and the final audit being confined to one office, instead of being made by two separate persons prior to final settlement. It is liable to be a lack of uniformity of action which would be prejudicial to efficiency and an unbiased audit.

For the reasons I have given and in view of the further fact that it is understood that the entire question of Government accounting is now being closely studied by a board appointed under the orders of the Director of the Bureau of the Budget, it is urgently recommended that no change in the present method of payment and auditing of transportation accounts be taken until the final recommendations of said board are in the hands of the Government.

REED. Up until a few years ago transportation bills in which were involved land-grant deductions were all referred to the proper clerk's office and the rate board in the Treasury Department settled on them and they were paid on Treasury warrants, but that was changed some years ago and the Navy was requested to put in facilities for paying land-grant bills.

ADMIRAL POTTER. I do not yearn to hold this section of the office, but matters would certainly not be expedited as much as we expedite

the number of employees in the Navy disbursing office engaged in the actual audit of vouchers of transportation companies for passengers and freight at the present time is 23.

Now if the General Accounting Office took over this work a number of clerks would still be required in this section of the Navy disbursing office for necessary administrative work, checking up the bills rendered, which services must be certified by an administrative officer before payment can be made; checking up loss and damage shipments of Government material; issuing transportation vouchers upon claims for the transportation of dependents of enlisted men and their household goods upon a change of station; checking rates under travel expense claims, and furnishing information to the purchase division as to freight rates for contract purchases.

As to the correctness of the audit now made by the rate experts in the Navy disbursing office, the following is of interest:

During the period from September 1, 1920, to January 1, 1921, the General Accounting Office suspended in the accounts of the disbursing officer as possible overpayments on account of transportation the sum of \$599.44, but of this amount it was found that \$311.11 had been properly paid, so that the total overpayments which are being collected from the railroads amount to \$288.33. During the same period on supplemental bills as to which the Navy disbursing officer was in doubt and accordingly referred to the General Accounting Office for audit, payments amounting to \$2,546.57 were allowed by the General Accounting Office and subsequently, upon representations from the Navy disbursing officer, were admitted to be overpayments and the Navy disbursing officer was requested to take the necessary action to recover from the railroad companies the overpayments made to them for transportation companies by the accounting officers in the Navy.

Mr. KELLEY. Mr. Secretary, will you give this a little more consideration and see whether or not there may be some duplication of work which might possibly be avoided between your accounting office and the General Accounting Office. It is a matter of administrative convenience sometimes when your attention is specifically called to this kind a beneficial change might result.

Secretary DENBY. In connection with that freight, I think I understood correctly; if I did not I would be glad to be corrected, and if I did I think you should again give consideration to other items in the bill. If you are going to cut it out, I think the theory that articles can be bought f. o. b. some place is correct.

Mr. KELLEY (interposing). I did not have that in mind. I was thinking of the deficiency situation. We did allow for it in this year.

Secretary DENBY. That would not have any other words, if you make an allowance for it, then pay the freight on them out of one of the accounts. If the articles are exhausted you would still be as much up a tree; you would have to pay for them and you could not get them at all if the articles were exhausted. If you add the freight to the cost of the articles whatever figures were considered as the cost, it would be all right.

Mr. KELLEY. That is what I had in mind, to suppose you do add the cost.

Admiral POTTER. It goes right in if it is put right at the yard.

Mr. KELLEY. And you buy food in that way?

Admiral POTTER. Yes, sir.

Mr. KELLEY. So that the ration would not be affected.

Secretary DENBY. You buy f. o. b. where?

Admiral POTTER. Point of delivery.

Mr. REED. At the navy yard?

Secretary DENBY. It is already bought that way?

Mr. REED. Yes, sir.

Secretary DENBY. Then freight is not a cost.

Admiral POTTER. No, sir; not if the point of delivery is f. o. b. point of delivery, but West of the land-grant railroad. The reduction on account of land-grant railroad is a 1 per cent reduction.

REED. From Ashland, Oreg., to Vallejo it is about 90 per cent.

KELLEY. And there it is cheaper to buy at point of manufacture because you pay the freight?

ADMIRAL POTTER. In that case, we pay the freight direct from this appropriation of freight, Supplies and Accounts.

TUESDAY, MARCH 21, 1922.

NEWPORT, R. I., INSTEAD OF HAMPTON ROADS, VA., FOR TRAINING MEN.

TESTIMONY OF HON. CLARK BURDICK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF RHODE ISLAND.

MR. KELLEY. Mr. Burdick, a Member of the House from the State of Rhode Island, is present, and we will be glad to have him make a statement for the record that he desires.

MR. BURDICK. Mr. Chairman, you know, of course, that the training station at Newport, R. I., is the first permanent training station on the Atlantic coast. It has permanent buildings, and boys have been trained for the Navy there right along up to within a year. They have taken them away from us and have been training them down at Hampton Roads. Hampton Roads is a war baby that was established in 1915 or 1916 and has been occupied ever since. As I understand the situation, it has temporarily constructed barracks buildings. They have been in use for 5, 6, or 7 years now, and it seems to me that within a very short time they will have to be replaced. Now, I would not complain at all if we were going to reduce a large number of boys trained, but I understand that the personnel of the Navy will be cut down considerably. It seems to me we have two factories—one a large plant down at Hampton Roads and the other a small plant at Newport, but the small plant at Newport is quite sufficient to turn out what we need, or pretty nearly all that we will need.

We can train down at Newport 10,000 boys per year. We can accommodate 2,500 there, and they have three-month periods, so we could turn out 10,000. We can train those 10,000 down there at a cost of \$200,000. In the Budget there is a suggested appropriation of \$75,000 for the upkeep of that training station while not in use. Therefore it seems to me that if this committee should give us \$200,000 more we could train all the boys for the Navy or all the boys that the Navy is going to need on the Atlantic coast. We find that about 40 per cent of the boys that go into the Navy come from the New England States, New York, Pennsylvania, and New Jersey. Taking the year 1921 as the basis, we find that about 40 per cent of the entire enlisted force of the Navy comes from those States.

Now, this matter has been before the Naval Affairs Committee of the Senate and they have requested the Secretary to submit figures. He has submitted two sets of figures, and I think the Secretary has submitted a third set. The last figure he submitted was on the 7th of March, in which he shows that in the year 1921 it cost \$753,000

to run the training station at Hampton Roads, as against to run the naval training station at Newport. That, of course, includes the regular appropriation plus the allotments from different bureaus.

Mr. KELLEY. Let me interrupt you there in order that I may have the information in the record. Was that based upon the number of boys in training?

Mr. BURDICK. No, sir; they trained a total of 12,000 at Hampton Roads and 7,000 at Newport. Those figures are based up with the idea of ascertaining how much it cost per man at different training stations, and the Secretary figured out the department figured out, that it cost \$4.15 per man at Hampton Roads and \$4.71 per man at Newport, but the Secretary is now saying before the Naval Affairs Committee that quite a number of the items that are charged up against Newport are not in those charged up against Hampton Roads. That explains that Hampton Roads apparently has a smaller cost. But the base, of course, they get heat, light, and power from the same source that is apportioned. Now, if you are going to appropriate the amount suggested by the Budget, or \$365,000, that, of course, is for the training of men; but, in addition to that, you have to add, according to the figures from the department, about \$100,000 to cover heat, light, water, and so forth, that they get free at Hampton Roads. Therefore, it seems to me that in cutting down the Navy's appropriation for training, a reduction in the number of apprentice seamen that you turn out it would be economy to train them at Newport. The mandant there is on record as saying that for \$200,000 he can turn out 10,000 boys, and you can not run that big plant down at Hampton Roads for less than six or seven hundred thousand dollars even with that limited number of boys.

I do not think it is a fair comparison to take the cost of training at Newport although the figures as given to me by the training station are that it costs about \$42 per man to turn them out at Newport against \$54 per man at Hampton Roads. The Secretary says that it costs about \$65 per man at Newport, but the trouble with those figures as a basis for comparison is that quite a large number of charges against Newport arise from the fact that the mandant of the training station happens to be the senior naval officer of the district, and therefore all the money goes there. We have, of course, a coaling station and other activities, and the War College there. We have down there a fine group of buildings are fine buildings and they are now in perfect condition. Of course, we also have Coddington Point, which is additional to the war measure and it was never occupied except for two or three months. I understood that it was the policy of Congress to get rid of that. The city paid at least one-half or two-thirds of the cost of that land. We have a good plant with permanent buildings enough to turn out all that you need with a Navy of 65,000.

Mr. OLIVER. You spoke of the buildings. How much has the Government spent on them in the way of repairs during the last year?

Mr. BURDICK. I do not know, but something like \$50,000.

Mr. KELLEY. We are very much obliged to you for your

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR.

Washington, D. C., March 17, 1922.

Number and class of vessels in the Navy on July 1, 1916, etc.

R. MADDEN: As requested in yours of March 14, 1922, I forward herewith statement showing number and class of vessels in the Navy on July 1, 1916, etc.

system of classification was changed in 1920, I have reclassified our lists to agree with the present system so that comparisons can be direct. Under construction are not included, and of district craft only those on the Navy list in the Navy Directory are included.

y respectfully,

D. W. TAYLOR,

Rear Admiral, Chief Constructor of the Navy, Chief of Bureau.

ARTHUR B. MADDEN,

use of Representatives, Washington, D. C.

-List of vessels in the United States as of July 1, 1916, and March 1, 1922.

	(1)	(2)	(2a)	(3)	(4)	(5)	(6)	(7)	(8)
	Vessels in the Navy July 1, 1916.	Vessels added since July 1, 1916, under authorization prior to that date	Vessels added under naval act, Aug. 29, 1916.	Vessels embraced by (1), (2), and (2a), stricken from Navy list (to Mar. 1, 1922).	Vessels on Navy list Mar. 1, 1922, after adding (2) and (2a) to (1) and deducting (3).	Vessels added to Navy under separate and special authorization since Aug. 29, 1916 (to Mar. 1, 1922).	Vessels embraced by (5) stricken from the Navy list (to Mar. 1, 1922).	Vessels embraced by (5) on Navy list Mar. 1, 1922.	Vessels embraced by (4) and (7).
.....	36	6	1	9	34	0	0	0	34
.....	7	0	0	7	0	0	0	0	0
ad line.....	16	0	0	5	11	0	0	0	11
.....	19	0	0	7	12	0	0	0	12
rs.....	0	0	0	0	0	1	0	1	1
.....	0	0	0	0	0	4	0	4	4
.....	34	0	0	34	0	0	0	0	0
.....	47	11	38	14	82	219	0	219	301
years.....	0	0	0	0	0	14	0	14	14
.....	38	34	40	18	94	6	0	6	100
nes.....	0	3	0	0	3	0	0	0	3
.....	8	0	0	0	8	12	0	12	20
.....	0	0	0	0	0	60	6	54	54
.....	0	0	0	0	0	341	277	64	64
.....	38	0	1	19	10	0	0	0	10
.....	14	0	0	6	8	0	0	0	8
.....	20	2	3	5	20	10	0	10	30
.....	8	0	2	0	10	19	0	19	29
.....	47	0	0	29	18	22	0	22	40
.....	0	0	0	0	0	49	3	46	46
.....	1	0	1	0	2	2	0	2	4
.....	4	1	0	3	2	2	0	2	4
.....	4	1	0	0	2	4	0	4	9
.....	21	0	0	8	13	17	0	0	30
.....	352	58	86	164	332	782	286	479	828
ts.....	(4)	(4)	(4)	(4)	(4)	40	14	26	26
gs.....	(4)	(4)	(4)	(4)	(4)	13	0	13	13
e boats.....	(4)	(4)	(4)	(4)	(4)	0	0	0	48
d.....	(4)	(4)	(4)	(4)	(4)	3	0	3	3
.....	(4)	(4)	(4)	(4)	(4)	0	0	0	13
.....									103
tal.....									931

* transferred to status of light mine layers.

v purchase or transfer.

ls transferred from some classified status.

t organized in 1916.

NAVY
Washington,

MY DEAR MR. KELLEY: In response to your personal request, I am forwarding herewith a statement showing the civilian personnel and shore activities under the Naval Establishment as of date January 1, 1921.

Sincerely yours,

T. B.
Assistant Secretary

Hon. PATRICK H. KELLEY,
Appropriations Committee, House of Representatives.

Naval Establishment.	Technical.	Drafting.	Clerical.	Messenger.	Police.	Superintendents and shop employees.	Planning and estimating group.	Schedule of wages (group I laborers).	Schedule of wages (group II helpers, apprentices).	Schedule of wages (group III artisans).	Miscellaneous.	Clerical, drafting, technical, etc.	Mechanics: Groups I, II, and III; planning and estimating; superintendents; shop employees; and miscellaneous.
Navy yards:													
Portsmouth, N. H.	5	70	194	9	5	88	14	134	602	1,050	8	283	1,986
Boston, Mass.	22	57	323	28	85	114	23	431	512	1,275	5	483	2,360
Brooklyn, N. Y.	46	153	439	27	61	173		464	963	2,284	2	726	3,886
Philadelphia, Pa.	40	105	456	24	46	177	35	528	1,160	2,074		671	3,965
Washington, D. C.	72	188	428	44	2	288	56	582	1,075	3,408	21	704	5,409
Norfolk, Va.	33	89	360	24	52	123	3	546	580	1,338	16	538	2,606
Charleston, S. C.	19	19	135	16	13	49	9	231	213	441	1	190	944
Mare Island, Calif.	33	78	432	36	52	226	41	531	1,244	2,294		631	4,325
Puget Sound, Wash.	29	68	261	34	10	143		292	926	1,512	4	402	2,577
Naval stations:													
Newport, R. I.													
Key West, Fla.	3	1	32	3	4	5		24	18	39	1	43	86
New Orleans, La.	5	1	50	0	2	5		57	94	47		58	203
St. Thomas, V. I.			9	1		2					55	10	57
Guantanamo Bay, Cuba.			16			21		94	117	123	10	16	365
Pearl Harbor, Hawaii.	23	20	63	9	4	43	3	360	265	498	1	149	1,150
Olongapo, Philippine Islands.		28	129	19	10	81		480	192	875		176	1,028
Cavite, Philippine Islands.		24	194	30	7	139		887	92	878		265	1,946
Tutuala, Samoa.			2	2		2		67	11	22		103	
Guam.		3	29			31		419	47	163	95	32	755

¹ Included in Naval Training Station, Newport, R. I.

Marine Corps, S. C.	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</
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Included in naval operating base.

*Included in First Naval District.

⁴ Civillian force discontinued December, 1921.

⁶ Included in navy supply depot, South Brooklyn, N. Y.

TABLE 9.—Recapitulation of monthly reports of forces employed in the Naval Establishment as of date January 31, 1922—Continued.

Naval Establishment.	Tech- nical.	Drafting.	Clerical.	Mes- sen- ger.	Police.	Superin- tendents shop em- ployees.	Planning and esti- mating group.	Schedule of wages, Group I (labor- ers).	Schedule of wages, Group II (helpers, appren- tices).	Schedule of wages, Group III (arti- sans).	Miscella- neous.	Clerical, drafting, tech- nical, etc.	Total.		
													Laborers; mechan- ics; Groups I, II, and III, plan- ning and esti- mating group; superin- tendents shop em- ployees; and mis- cella- neous.		
Naval hospitals—Continued.															
Marine Island, Calif.	1		14		1	1		11	3	32	51	16	98		
Puget Sound, Wash.			2			1		7		15	12	2	35		
Pearl Harbor, T. H.								18		8	10		36		
San Diego, Calif.											57		57		
San Francisco, Calif.	3		16	3		1		1	6	2		27	10		
San Francisco, Calif.			1		4							6	0		
San Francisco, Calif.															
San Francisco, Calif.	23	69	128	4	22	39	9	124	417	494		270	1,083		
San Francisco, Calif.			7		2	8		15	7	8		9	61		
San Francisco, Calif.	25	5	240	4	25	25		314	101	282	25	237	813		
San Francisco, Calif.	23	4	63			40		289	340	341		99	990		
San Francisco, Calif.			8		2			6		1		7	7		
San Francisco, Calif.	2	8	283		7	27		1				10	1		
San Francisco, Calif.	4	1	16	11	7	2		432	49	244	3	260	895		
San Francisco, Calif.								118	12	27		18	176		
San Francisco, Calif.			4		2	1		2	4	12		7	11		

[illegible]

No civilian employees.

PERSONNEL OF THE NAVY.

STATEMENT OF HON. W. S. VARE, A REPRESENTATIVE
CONGRESS FROM THE STATE OF PENNSYLVANIA.

Mr. KELLEY. Mr. Vare, a Member of the House from Pennsylvania, would like to make a statement to the committee is ready we will be glad to have him make it at this time.

Mr. VARE. Mr. Chairman, I want to discuss, with you, the feature of the present bill in connection with the personnel of the Navy. I am exceedingly interested, first, to see that the personnel of the country is of adequate size to meet all the requirements agreed upon by the recent Disarmament Conference. I do not know whether the committee has come to any conclusion or whether they have passed that feature of the bill, but the *Public Opinion* of Philadelphia, this morning printed quite a prominent article about the figure 65,000 as the number which the committee recommended to believe to be adequate. Of course, I do not know whether these figures are really correct or not. I do want to submit to the committee the information that I have, which maybe has already been submitted, but I made some inquiries from responsible naval authorities who tell me that if this program is to be adequately carried out, in their opinion, the number should be 120,000. The Secretary of the Navy, having in mind the policy of the committee to reduce the personnel, places the figures at 90,000 men and 6,000 apprentices. I am sure that officials having had intimate relations with the Disarmament Conference, have expressed their views that 80,000 men and 6,000 apprentices would be the least numbers that would be reasonable to man the ships.

I am frank to admit that I am interested from a two-point point. First, I want to see the policies of the Disarmament Conference carried out; and, secondly, I want to see the efficiency of the Navy maintained. Having in mind the city of Philadelphia, I live, the former Secretary of the Navy told me quite recently that he regarded the Philadelphia Navy Yard as the equal, if not the superior, of all the navy yards of the country from the point of economy and efficiency; and I think the records of the Navy Department, having been kept in line with that thought, show that the availability and the results obtained from the Philadelphia Navy Yard during the war were possibly more advantageous than those obtained from the navy yards of many other parts of the country.

I realize the importance of the economical policy which the Appropriations Committee is endeavoring to carry out and have very much to say in its favor. Sometimes, however, in our desire for economy, we are very apt to lean backward if we become too enthusiastic about the subject; and it seems to me that for the general standpoint of the country in its relations with the foreign countries which participated in the recent conference, under no circumstances should we neglect our importance, and that economy, practiced to a greater extent than that which would carry out the policies of the recent conference, say the least, would be possibly unwise and perhaps injurious.

y. I am hopeful that your subcommittee will recommend at personnel of 86,000 men.

KELLEY. Mr. Vare, we are much obliged to you.

VARE. I thank you, Mr. Chairman, for the opportunity to be at.

FUEL AND TRANSPORTATION.

KELLEY. The next is fuel and transportation. Let us take fuel do they go together?

LEUTZE. They go together.

KELLEY. I think I suggested, Admiral, that in preparing the e for fuel and transportation it would be desirable that the consumption be computed on so many thousand miles a year as appropriated for the various classes of vessels.

ADMIRAL POTTER. Yes, sir.

KELLEY. You have done that?

ADMIRAL LEUTZE. Yes, sir; and also, in accordance with your suggestion, we have put in those first columns figures which show the consumption while steaming, in port, and cruising 100 miles.

KELLEY. Before we take up the details you might make a statement showing what your requirements will be.

ADMIRAL LEUTZE. The estimates for coal and fuel are for 440 vessels given to me by the Chief of Naval Operations. For most of them they are based on 16,200 miles for the year, but there are exceptions, such as oilers, which it was estimated would cruise 50,000 miles; ammunition ships, 50,000 miles; colliers, 50,000 miles; cargo vessels, 50,000 miles; transports, 75,000 miles; mine sweepers, 30,000 miles; auxiliary ships, radio, 30,000 miles; sea-tugs, 12,000 miles; shore-base submarines, 9,600 miles; reserve destroyers, 12,000 miles. The number of miles was given to me by the Chief of Operations.

REVENUE ESTIMATE FOR APPROPRIATION "FUEL AND TRANSPORTATION, 1923."

The following revised estimate of funds required under the appropriation and transportation, 1923" is submitted:

Coal (376,906 tons at \$8.849 per ton)-----	\$3,335,241.19
Oil (5,524,456 barrels at \$2.163 per barrel)-----	11,949,398.00
Gasoline (3,289,500 gallons at \$0.24 per gallon)-----	789,480.00
Maintenance of fuel plants-----	876,095.64
Cost of fuel oil and coal storages-----	92,693.68
-----	130,065.23
-----	30,564.73
Balance current-----	163,047.34
Storage-----	13,156.00
Interest-----	28,312.00
Contingencies-----	20,000.00
Total-----	17,426,053.81

The above estimate is based on the number of vessels to be kept in commission during the fiscal year 1923, as shown on the list furnished by the Chief of Naval Operations. This list shows a total of 443 vessels of all types, of which 440 burn coal or fuel oil and 3 gasoline as fuel.

The estimate for coal and fuel oil for the 440 vessels above mentioned is based on vessels cruising 16,200 miles during the year, with the following exceptions: 7 oilers will cruise 50,000 miles; 2 ammunition ships will cruise 50,000

miles; 2 colliers will cruise 50,000 miles; 5 cargo vessels will cruise 75,000 miles; 3 transports will cruise 75,000 miles; 10 mine sweepers will cruise 30,000 miles; 1 auxiliary ship will cruise 30,000 miles; 14 seagoing tugboats will cruise 12,000 miles; 5 shore-based submarines will cruise 9,600 miles; reserve destroyers will cruise 12,000 miles.

Ammunition lighters, fuel-oil barges, freight lighters, ferryboats and water barges, and miscellaneous craft are not shown at any particular distance, as vessels of these types do not operate on fixed schedules; quantities are based on past performances. Receiving ships will do no coaling and port consumption only is shown for these vessels.

Mr. KELLEY. Are the 440 vessels which you have mentioned total of the vessels indicated on this chart?

Captain LEUTZE. Yes, sir; on the big sheet. That which you have in front of you is a summary sheet, and the details, showing names of each ship, are on the attached sheets.

Mr. KELLEY. It does not add to anything like that.

Captain LEUTZE. I think you will find the difference on sheet of the statement which shows the district shore-activities.

Mr. KELLEY. District vessels?

Captain LEUTZE. District shore-activities craft.

Mr. KELLEY. We were not to put in any district vessels; ships to be kept in commission; and the district expense we were to have was all the expense of the shore establishment.

Captain LEUTZE. The last sheet shows 14 seagoing tugs assigned to the districts, 42 harbor tugs, 5 shore-base submarines, 9 receiving ships, 4 ammunition lighters, self-propelled, 15 barges, 11 freight lighters, 23 ferryboats, 4 self-propelled barges, and 5 miscellaneous craft.

Mr. KELLEY. That makes the other 100, and, added to the 340, would make the 440 you spoke of?

Captain LEUTZE. Yes, sir; the 440.

Mr. KELLEY. The last list were those that were properly assigned to shore activities?

Captain LEUTZE. Yes, sir.

Secretary DENBY. Then there is the fuel.

Mr. KELLEY. You have to have fuel out of this appropriation.

Secretary DENBY. Yes, sir.

Mr. KELLEY. Captain, before we go into the details, my understanding is that this estimate for fuel is based upon the list of fuel furnished you by the Navy Department based upon an enlistment of 65,000 men?

Captain LEUTZE. That is correct.

Mr. KELLEY. The list and the Secretary's letter accompanying the list have already been printed in the record?

Captain LEUTZE. I am not sure about that.

Mr. KELLEY. The list I speak of, furnished by the Secretary, with the letter accompanying it have been printed in the record. Now, Captain, proceed with your statement.

Captain LEUTZE. The total amount necessary, according to the estimate, is \$17,426,053.81, made up as follows: Coal, \$3,300,000; fuel oil, \$11,949,398; gasoline, \$789,480; maintenance of fuel, \$876,095.64; leased fuel oil and coal storage, \$92,693.60; ice, \$130,065.23; electric current, \$163,047.34; dockage, \$13,156; tug hire, \$26,312, and miscellaneous, \$20,000, making a total of \$17,426,053.81.

KELLEY. Please give the total for the first three items—coal, oil, and gasoline?

STAIN LEUTZE. \$16,074,119.19.

KELLEY. How much does that leave for all the other purposes under this appropriation?

STAIN LEUTZE. \$1,351,934.62.

COST OF COAL PER TON.

KELLEY. How did you arrive at your price per ton of coal?

STAIN LEUTZE. We took the amount of fuel that was used by the Atlantic and Pacific Fleets during the first six months and applied the same percentage to the estimate for this year for the two fleets. We took the average price of what we expect to have to pay, on current prices. It amounts for the fuel oil to \$2.163 per barrel and for the coal \$8.849 per ton.

KELLEY. It can not be that you will pay \$8.84 for coal?

STAIN LEUTZE. The unit price for the coal is based on the present market price at tidewater points with differential added for transportation and various forms of delivery. That fuel includes, of course, the coal used in the Pacific.

KELLEY. The coal in the Pacific will be almost negligible under the new distribution of ships?

STAIN LEUTZE. No, sir. It is 60,000 tons that we will use on the Pacific from stock already out there and 110,000 tons will have to be put out in addition. That makes 170,000 tons to be used out there. It includes the Asiatic coal.

KELLEY. The stock out there?

STAIN LEUTZE. Some of it out there is worth as high as \$10.45, the stock out there is paid for and in the storehouse, waiting to be used to the ships.

KELLEY. Paid for out of the naval supply fund?

STAIN LEUTZE. Yes, sir. The naval supply account fund.

KELLEY. And you will have to reimburse that fund?

STAIN LEUTZE. Yes, sir.

COAL REQUIREMENTS.

KELLEY. How much is your total coal estimate?

STAIN LEUTZE. Three hundred and seventy-six thousand nine hundred and six tons.

KELLEY. How does it happen that you will need one-half of the coal in the Pacific when you are going to have the oil burners out and the coal burners on the Atlantic?

STAIN LEUTZE. We simply took the rate at which it has been used during the first six months.

KELLEY. That is no answer.

ADMIRAL COONTZ. The answer is that with 65,000 men there will be 100 ships in the Atlantic.

KELLEY. Then you will not need any coal and we can cut the use of coal very extensively?

ADMIRAL COONTZ. No, sir. We have already allowed for the cut.

KELLEY. If you do not have the ships you will not need the

Admiral COONTZ. The ships are there by name.

Mr. KELLEY. You will not use or operate them?

Admiral COONTZ. Yes, sir; we will operate them.

Mr. KELLEY. What do you mean?

Admiral COONTZ. I mean to say that when we cut down to the 65,000 basis, when that time comes, there will be a great many fewer ships left on the Atlantic coast, relatively.

Mr. KELLEY. How many tons are you asking for this year?

Captain LEUTZE. Three hundred and seventy-six thousand hundred and six tons.

Mr. KELLEY. You asked for 406,576 last year for all of the. You are not asking for a very greatly reduced tonnage of any reason that the Admiral has been talking about, have you? fact is this reduction is based on taking out the old ships like *Olympia*, is it not?

Captain LEUTZE. The Chief of Operations will have to answer the question.

Mr. KELLEY. How much did the *Olympia* burn last year?

Captain LEUTZE. I have not that figure.

Mr. KELLEY. Can you give us any idea as to how many tons of coal a ship like that would burn?

Captain LEUTZE. No, sir.

Admiral ROBISON. When I served on the *Olympia* she used to burn about 5,000 tons a year, but that was when she was in active operation on the Asiatic.

Mr. KELLEY. She was not very active last year?

Secretary DENBY. Yes, sir. She was actively cruising.

Mr. KELLEY. There is one thing, if you are going to lay up the ships you do not need the coal. You are asking for almost as much coal as last year?

Admiral COONTZ. We are going to run every ship on the list if the bill passes that way. These estimates were made by considering the needs of each ship that would be named in case the enlisted personnel is reduced to 65,000. They are right on the list, ship or ship, every one of them.

Mr. KELLEY. Twelve battleships of the first line that you have been talking about running, are they all oil burners?

Admiral COONTZ. No, sir. The *New York* and *Texas* are coal burners.

Mr. KELLEY. They are the only two coal-burning battleships that you will have in commission?

Admiral COONTZ. Yes, sir; outside of those in ordinary. The two are on the Pacific.

Mr. KELLEY. Will those in ordinary have enough men on them that they can cruise?

Admiral COONTZ. No, sir. I do not know whether you charge coal to them except for the small amount for electric current?

Captain LEUTZE. Two-thirds of the ordinary port consumption.

Mr. KELLEY. How does it happen that you are estimating a dollar more per ton than you estimated last year?

Captain LEUTZE. Last year it did not include the handling charges or the freight charges, which are in this year. It was \$7.65 last year, but the freight and handling were thrown down under miscellaneous.

r. KELLEY. You do not mean to say that you paid \$7.65 for coal at the mine?

r. REED. That was the water transportation.

Commander COBEY. The charge is \$2.24 f. o. b. mine. The freight to tidewater is \$2.80 and the rest is water freight to the Pacific.

r. KELLEY. You do not send it by freight. I thought you had orders to take it out there. What do you want the colliers for?

Secretary DENBY. With the fleet.

r. KELLEY. You do not send the coal out to the Pacific by commercial vessels?

Admiral COONTZ. Yes, sir.

Secretary DENBY. The colliers accompany the fleet going to sea.

r. KELLEY. Where you have to handle the coal in that way it is to me that the cheaper way would be to send the coal out there.

Admiral COONTZ. We plan to keep two colliers for next year in the personnel is reduced to 65,000. You can work it out either way you want to.

r. KELLEY. \$4 a ton for getting from the Atlantic to Asia is pretty good, it seems to me. What is the charge out there?

Captain LEUTZE. To the Pacific about \$7 a ton, and to the Asiatic about \$10 a ton.

r. KELLEY. You have 60,000 tons out there?

Captain LEUTZE. One hundred and ten thousand tons more will be sent out—95,000 tons to the Pacific coast and 15,000 tons to the Asiatic station.

r. KELLEY. Now, Captain, the bulk of the coal goes from Hampton Roads to the west coast?

Captain LEUTZE. Yes, sir.

r. KELLEY. How about the coal that is used in the Atlantic?

Commander COBEY. The average freight rate is \$2.54.

r. KELLEY. Why do you not have the ships go to Hampton Roads and get the coal instead of shipping it around? I do not like the cost of this thing some way. Eight dollars and eighty-three cents, which is higher than last year, charging \$2 and some odd cents for transportation from Hampton Roads when we have the ships which can go there and get the coal?

Captain LEUTZE. The shore activity craft could not go.

r. KELLEY. You could distribute a little of your shore activities to get the coal for the fleet. The shore activities get the coal somewhere else?

Captain LEUTZE. That is all included in this estimate for coal for next year; we had to put that in.

r. KELLEY. What do you pay at the mine?

Commander COBEY. \$2.24 West Virginia and \$3.57 Pennsylvania. The ship pays for Pennsylvania coal to the New York and Philadelphia wharves.

r. KELLEY. How much of that coal have you estimated for the battleships in ordinary?

Captain LEUTZE. Thirty-six thousand six hundred and ninety-six tons.

r. KELLEY. Six thousand tons of coal apiece?

Captain LEUTZE. Yes, sir.

r. KELLEY. And what for the two in commission on the Pacific?

Captain LEUTZE. Thirty-four thousand and forty-five tons.

Mr. KELLEY. Seventeen thousand tons apiece?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. Where is the rest of this coal? Thirty-six thousand tons for battleships in ordinary, and 110,000 tons for China 146,000 tons.

Captain LEUTZE. Forty-six thousand five hundred and eleven tons for the patrol vessels—gunboats.

Mr. KELLEY. They are over in China; that is a part of the China outfit.

Admiral COONTZ. They are scattered pretty well. Those 10 are in China?

Captain LEUTZE. Yes, sir. Nine thousand one hundred and thirty-three tons for the other patrol vessels; destroyer tenders, 10,023 tons.

Mr. KELLEY. The six battleships, how much?

Captain LEUTZE. The six battleships in ordinary, 36,696 tons.

Mr. KELLEY. What else do you have in the Atlantic?

Captain LEUTZE. We have not got it split by oceans.

Mr. KELLEY. How can you tell how much the fleet will be un-

Captain LEUTZE (interposing). We took the issues of coal for the first six months of 1922, and we prorated those issues down to the figure called for by this estimate.

Mr. KELLEY. You have not figured this out on the basis of the tonnage at all?

Captain LEUTZE. Yes, sir; absolutely.

Mr. KELLEY. How could you without knowing where the ships are or where they would be next year? How do you know the amount will be \$8.86 per ton without knowing where the vessels will be located?

Captain LEUTZE. We used the amount of coal that was used during the past six months at the present location of the ships.

Mr. KELLEY. You are basing it upon the experience of the ships when the ships were located in different places and when you had entirely different ships from what you will have next year. You do not base the estimate upon this table at all.

Captain LEUTZE. I beg your pardon; we did base it on this table. We can not say that the ships will be in any one locality for a year.

Mr. KELLEY. How do you average the coal, then?

Captain LEUTZE. It is based upon past experience.

Mr. KELLEY. The past experience of what?

Captain LEUTZE. Based on where the ships were located.

Mr. KELLEY. Last year?

Commander LEUTZE. No, sir; this year, or during the first six months of 1922.

Mr. KELLEY. Some of those ships on that list were in the Atlantic and now they will be in the Pacific.

Admiral COONTZ. The two battleships burning coal in the Pacific will stay there; the outfit in China will stay there, except two, if we can get them home, and the special-service squadron will be just as at present. The six ships in ordinary are in the Atlantic, and the other small craft burning coal will remain where they are in various island possessions. I think it can be safely said that in the next 12 months there will be no changes as to where these ships

ated. If we carried any of them from the Atlantic to the Pacific, it would add greatly to the cost, and the tendency would be to put them where they are rather than spend more money.

Mr. KELLEY. If these six were in commission in the way they were last year, you would require 102,000 tons for them alone—is that correct?

Mr. LEUTZE. About 102,000 tons.

Mr. KELLEY. That would make a total consumption of 478,906 tons and you have only 406,000 tons this year.

Mr. LEUTZE. The 406,000 tons for last year was based on steaming 1,000 miles per month, and this figure is based on steaming 1,200 miles per month.

KELLEY. I am trying to find out how you get at the \$8.86 per ton; you have not helped me much. Do you know, Mr. Reed?

REED. Yes, sir; I understand his statement. It was not difficult for the Chief of Naval Operations to say that this or another ship would next year serve in any particular ocean, and in arriving at an equitable figure we took our consumption of coal for the first six months of this year. We have just received reports of the actual consumption, showing us how many tons of coal have been consumed by all this fleet during the first six months, and that was split up by oceans, allowing so much for the Atlantic, so much for the Pacific, so much for the Asiatic station, so much for other points. We had to assume, and it seemed reasonable, that that distribution would represent the distribution of consumption during 1923, the difference, if anything, being made up by us, because if more coal burners in the Atlantic go out there, they would have a larger proportion of consumption in the Pacific.

ESTIMATED COST OF COAL AND OIL.

Mr. KELLEY. I understand the general statement; and now let me have the detailed figures showing how you arrived at this estimate of so much per ton at this place and so much per ton at the other place, and then striking an average.

Mr. REED. The transportation involved here is 184,232 tons, and the rail rate from the mine to Hampton Roads is \$2.80.

TABLE SHOWING HOW AVERAGE PRICE OF COAL AND OIL AND GASOLINE WAS OBTAINED.

The prices of \$8.849 per ton for coal, \$2.163 per barrel for fuel oil, and \$1.163 per gallon for gasoline, used in the estimate of funds required under the appropriation "Fuel and transportation, 1922," were arrived at, as follows:

COAL.

Base and stock:

1,508.60 tons used at Pacific coast points from stocks carried in N. S. A. F., at \$8.85	\$356,068.80
1,060.16 tons used at Cavite from stocks carried in N. S. A. F., at \$10.45	157,378.68
14,624.79 tons purchased f. o. b. West Virginia mines, at \$2.24	637,559.53
2,712.20 tons purchased f. o. b. Pennsylvania mines, at \$3.57	116,782.55

Transportation—rail and water:

184,351.80 tons by railroad to Hampton Roads for shipment, at \$2.80	\$515.81
100,889.99 tons by railroad to Hampton Roads for bunkers, at \$2.80	291.0
32,677.20 tons by railroad from mines to ports on Atlantic coast, at \$3.51	114
73,242 tons by water Hampton Roads to Atlantic coast ports, at \$2.54	186.0
95,778 tons by water Hampton Roads to Pacific coast ports, at \$7	670.4
15,212.80 tons by water Hampton Roads to Asiatic stations, at \$15	228.1
284,623.79 tons trimming charges at Hampton Roads, at \$0.25 per ton	71.1
Total	3,337.4

376,906 tons coal—\$3,335,241.10—\$8.849 per ton.

FUEL OIL.

Point of delivery.	Unit price per barrel bulk.	Quantity.	Tc
<i>Barrels.</i>			
East coast:			
Portsmouth, N. H.	\$2.80	29,700	8
Boston, Mass.	2.80	74,230	2
Melville, R. I.	2.76	163,350	4
New London, Conn.	2.75	14,850	
Philadelphia, Pa.	2.65	103,950	2
New York, N. Y.	2.65	222,750	5
Guantanamo, Cuba.	2.66	29,700	
Charleston, S. C.	2.55	89,100	2
Norfolk, Va.	2.60	163,350	4
Canal Zone	2.70	29,700	
Gulf ports	2.25	1,485,010	3.4
At average cost of	2.4411	2,405,710	5.9
Add differential per barrel for other forms and points of delivery (average of increase over basic prices for deliveries during 11-month period)	.17		
Total	2.6111		6.3
West coast:			
San Francisco, Calif.	1.50	534,600	
San Pedro, Calif.	1.50	1,485,000	2.1
Pearl Harbor, T. H.	2.15	356,646	
Seattle, Wash.	1.88	267,300	
San Diego, Calif.	1.65	475,200	
At average cost of	1.629	3,118,746	5.1
Add differential per barrel for other forms and points of delivery (average of increase over basic prices for deliveries during 11 months' period)	.187		
Total	1.816	3,118,746	5.3

5 524,456 barrels÷\$11,949,365.68=\$2.1629.

The average unit price per gallon for motor gasoline is arrived at as follows:
Prices at principal points under present contracts are—

East coast:

Boston, Mass.	\$0.245
New York, N. Y.	.195
Baltimore, Md.	.195
Norfolk, Va.	.195
Key West, Fla.	.195
Port Arthur, Tex.	.16

West coast:

Puget Sound, Wash.	.23
Mare Island, Calif.	.21
Richmond, Calif.	.205
San Francisco, Calif.	.21
San Pedro, Calif.	.205
San Diego, Calif.	.215
Pearl Harbor, T. H.	.225

unit price of \$0.24 per gallon for motor gasoline is based on prices, as above, now being paid under contracts, for gasoline delivered in various, such as f. o. b. vessels at contractor's works, in supplier's barges, in tank and tank wagons, in drums, and a limited quantity in cans and cases.

. KELLEY. That added to the price at the mine would make how much at Hampton Roads?

. REED. \$5.04 per ton at Hampton Roads. Then there are trim-charges of 25 cents per ton.

. KELLEY. That would make \$5.29 per ton.

. REED. For transportation to Pacific coast points the cost is \$7 per ton, and that would give you a cost there of \$12.29 per ton.

. KELLEY. Do you figure on taking around there the whole quantity of 170,000 tons?

. REED. No, sir; only a part of it. We figure on taking to the Pacific coast 95,778 tons by water at a cost of \$7 per ton, and 15,213 tons to the Asiatic station at a cost of \$15 per ton for transportation. That would be in addition to the \$5.29 per ton at Hampton Roads.

COST OF JAPANESE COAL.

. KELLEY. At what price could you buy coal in Asia if you bought it there commercially?

. REED. Japanese coal is procurable at about \$9.90 per ton at present time, but the price fluctuates greatly.

. KELLEY. And you could take coal out there at a cost of how much?

. REED. \$15 per ton, or total cost of \$20.29.

. KELLEY. Is Japanese coal unusable?

Admiral POTTER. It is not fit to use on our ships.

. REED. It requires about two-thirds of a ton of our coal to equal one ton of Japanese coal, I think.

. KELLEY. You can not burn it in our ships?

Admiral POTTER. We never do except in an emergency. Admiral Robison would know about that.

. KELLEY. Is Japanese coal unusable in our ships?

Admiral ROBISON. No, sir; we can use it.

. KELLEY. Have you thought about the advisability of buying coal out there for our ships?

Admiral ROBISON. Yes, sir.

. KELLEY. What is your opinion in regard to it?

Admiral ROBISON. Japanese coal is usable. It is worth about as much as ours, and sometimes it costs less than twice as much as ours. The difference between the costs when it is burned aboard our ships measured in dollars and cents is all enough to make it worth while to have the reserve supply of coal that we have there, and for our reserves we must have the coal we can obtain.

. KELLEY. You plan to use for the ships out there coal that you buy commercially out there?

Admiral ROBISON. No, sir.

. KELLEY. You will send it from here?

Admiral ROBISON. Yes, sir. The reason for that is that coal deteriorates in storage. The best coal after 10 years in storage is not worth anything.

Mr. KELLEY. You will not need to keep it so long. Have we a big supply of coal out there?

Admiral ROBISON. I am not familiar with those figures, but I think there is something over 50,000 tons out there. That coal can be used up at a certain rate, say, a quarter of it every year in order to keep it from excessive deterioration.

Mr. KELLEY. Do we use more than a quarter of 50,000 tons a year?

Admiral ROBISON. I do not know that figure. I would like to get that figure from somebody else.

Commander COBEY. We used 58,224 tons in the last 12 months ashore and afloat.

Mr. KELLEY. How much have you in storage?

Commander COBEY. Thirty-one thousand seven hundred eighty-six tons on the 1st of February. As Admiral Robison said, Japanese coal is rated two-thirds the value of Pocahontas coal in British thermal units. When the price of Japanese coal comes to a point where it is less than two-thirds the price of Pocahontas coal delivered there then Japanese coal is used.

Mr. KELLEY. It costs \$20 to deliver Pocahontas coal out here and you can buy Japanese coal for \$9.90 per ton, and, as you know, there is a difference of only one-third in value. Therefore you can save by using Japanese coal.

Commander COBEY. They are now using Japanese coal.

Mr. KELLEY. That would represent a saving of—

Admiral ROBISON. \$5.15 per ton.

Commander COBEY. We are now using Japanese coal on account of the drop in the price.

Mr. KELLEY. You are asking us to appropriate money to take this coal from Hampton Roads to China, at a cost of \$20 per ton when you can buy Japanese coal of one-third less value in British thermal units at \$9.90 per ton. If you bought the coal there it could effect a saving of \$6 per ton.

Commander COBEY. We are burning Japanese coal out there. However, the price of that coal fluctuates a great deal.

Mr. KELLEY. Was this item of \$20 per ton figured in this average of \$8.86?

Mr. REED. We figured on the transportation of 15,213 tons of commercial carrier at that rate.

Admiral ROBISON. If you used Japanese coal to any great extent I would like to ask for an increase in the engineering appropriation to correspond, because I will have to spend more money on boilers. The Japanese coal is dirtier and it has sulphur in it. It does not pay to use it unless there is a considerable difference in the price. With a difference of \$6 per ton I would rather use Japanese coal.

Mr. KELLEY. We will take care of your end of it, Admiral.

Admiral ROBISON. This is something that affects my end of it directly.

Mr. KELLEY. You gentlemen may have convinced yourselves this, but you have not convinced me at all that you are paying anything like an average of \$8.86 per ton for coal, or that any amount should be allowed. The cost is \$5.04 per ton at Hampton Roads, and the bulk of this coal is to be used in the Atlantic.

ing 376,000 tons, and with two-thirds of the coal to be used Atlantic, and with the price of coal at Hampton Roads \$5.04 a ton, you figure an average of \$8.86 per ton. Now, you say that if you buy the coal that you want to use in the Orient at \$9.90 per ton it will cost \$20 per ton to carry it out there. By using Japanese coal at that price you will make a saving of \$6 per ton on the coal, though it may make a little difference in engineering.

MANDER COBEY. Thirty-two thousand seven hundred and eighty tons of that coal is Pennsylvania coal, and the balance is Pocahontas coal. Fifteen thousand two hundred and thirteen tons is to be shipped to the Asiatic station.

KELLEY. What is the freight on the Pennsylvania coal?

MANDER COBEY. That coal delivered at New York or Philadelphia is \$7.08 per ton as against \$5.29 per ton at Hampton Roads.

KELLEY. How much will there be of that Pennsylvania coal?

MANDER COBEY. Thirty-two thousand seven hundred and eighty tons.

KELLEY. That is just a little.

MANDER COBEY. Ninety-five thousand seven hundred and seventy-eight tons goes to Pacific points other than the Asiatic Station, 2,213 tons goes to the Asiatic Station.

KELLEY. I thought you said you did not need to send any over

MANDER COBEY. That depends upon the Japanese coal market, which fluctuates very violently. Up to January, it was higher than two-thirds the value of Pocahontas coal delivered.

KELLEY. Admiral Potter, what do you say about this matter? Are they convinced you?

ADMIRAL POTTER. They convinced me. I did not know until just now that the engineering people agreed to the using of Japanese coal.

I knew that they used it in cases of emergency, but I did not know that as a matter of principle the Bureau of Engineering allowed Japanese coal to be bought.

KELLEY. Would it not cost more to send it by freight than the extra collier that will not be used in the fleet? Could you use all the coal you need around to the Pacific with that collier and store it out there?

ADMIRAL POTTER. Manning it with a Navy crew?

KELLEY. Suppose you took the extra collier for that purpose, how much would it cost you to carry coal out there by that means? How much coal could you carry on that collier?

MANDER COBEY. Ten thousand five hundred tons.

KELLEY. You would have to make 10 trips in order to get the amount of coal you would need, and you could not make that many trips in one year.

ADMIRAL COONTZ. Whenever there is a collier available, we use her whenever it is possible to do so.

COAL SUPPLY ON PACIFIC COAST.

KELLEY. How much coal have you already stored on the Pacific coast?

MANDER COBEY. We have of all kinds at all places, both Pacific and Atlantic, very close to a two-year supply.

Mr. KELLEY. How much do you want on the Pacific?

Commander COBEY. That includes coal used by the power plants. They use much more at Cavite than they use afloat. That includes the shore consumption.

Mr. KELLEY. You do not use the same kind of coal for the power plants, do you?

Commander COBEY. We do when the price justifies it. When the price is falling, as it is in the case of the Japanese coal, we use that. We are using Japanese coal for the power plant at Cavite.

Mr. KELLEY. At what point do you have coal stored on the Pacific? Commander COBEY. At San Diego, Tiberon, and Puget Sound.

Mr. KELLEY. How much do you have stored at each place?

Commander COBEY. At San Diego, 43,299 tons; at Tiberon, 107,910 tons; and at Puget Sound, 30,755 tons.

Mr. KELLEY. Why do you want to stock up further on coal than when you have a two-year supply on hand?

Admiral COONTZ. We must have a coal supply.

Mr. KELLEY. The world will not come to an end, and there will be a supply for next year. You have a two-year supply on hand and why should you keep filling the bunkers?

Admiral COONTZ. For the safety of the United States, and because every authority on the subject wants it kept there.

Mr. KELLEY. A two-year supply?

Admiral COONTZ. Yes, sir. That does not affect what appears in the naval supply account fund that I can see.

Mr. KELLEY. We would save this freight.

Admiral COONTZ. It certainly would save freight this year, but it would be cutting the reserve down to nothing.

Commander COBEY. That is based on the fleet that is expected to be maintained next year.

Secretary DENBY. What has been the custom in the past?

Admiral COONTZ. The custom ever since we have had any plans has been to gradually but surely create reserve supplies of coal and particularly in the Pacific, and we are slowly building up to that. We should have out there, having in view that if anything happened that would prevent us from taking any coal out there we would have a supply available.

Mr. KELLEY. How much coal are we going to deliver out there between now and the 1st of July?

Commander COBEY. None.

Mr. KELLEY. There is no contract in existence for the present?

Commander COBEY. No, sir. There is a 15-month supply on the Pacific. The two-year supply includes a large storage down at Hampton Roads.

Mr. KELLEY. A two-year supply for what?

Commander COBEY. For the vessels that we expect to have in the Pacific next year.

Mr. KELLEY. For the vessels on this list?

Commander COBEY. Yes, sir.

Secretary DENBY. I would like to make one point clear: I do not see what benefit the appropriation would gain by destroying the two years' supply.

Mr. KELLEY. If we have that supply of coal out there, we do not need to ship any more around.

retary DENBY. We would have to pay it back.

KELLEY. I am trying to ascertain whether or not you want to up any supply in addition to what you are using out there, in y of a further reserve.

miral COONTZ. This does not account for any reserve next year.

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. KELLEY. On this coast during the war we had great num- of vessels of every description crossing the Atlantic. They crossing the Atlantic by the score.

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retary DENBY. Is this for the operation of the fleet only, or for replenishing the naval stores accounts, or is it creating a igent reserve? If it is to operate the fleet and the Naval lishment out there alone, then one year's supply would be d, but if it is to operate the fleet and Naval Establishment i reserve, then more would be needed.

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nmander COBEY. It will reduce it about 60,000 tons. We con- ate using the reserve to the extent of 60,000 tons. That is y a reserve under the control of the department.

ESTIMATED COST OF COAL.

. KELLEY. What is the price of coal at commercial plants at Diego and San Francisco, or what could you buy coal delivered e coast for?

nmander COBEY. At this time it is exactly the same price we

The commercial price at the mines to-day varies from \$1.68 24. The price delivered varies according to the kind of bot- hat can be gotten. If a vessel is going out there light and takes al as ballast, the rate may be as low at \$4.50.

. KELLEY. When we gave authority to readjust the coal price ear, at what price did you inventory the coal on the Pacific?

nmander COBEY. On the west coast it was inventoried down to r ton.

. KELLEY. Then, why do you want us to give you \$12 per ton?

tain LEUTZE. We are asking \$8.849 per ton as an average. It on the Pacific coast and \$10.45 for the Asiatic Station.

Mr. KELLEY. How much do you want on the Pacific?
Commander COREY. That includes coal used by the power plants. They use much more at Cavite than they use afloat. That is the shore consumption.

Mr. KELLEY. You do not use the same kind of coal for the plants, do you?

Commander COREY. We do when the price justifies it. When the price is falling, as it is in the case of the Japanese coal, we use that. We are using Japanese coal for the power plant at Cavite.

Mr. KELLEY. At what point do you have coal stored on the Pacific?

Commander COREY. At San Diego, Tiberon, and Puget Sound.

Mr. KELLEY. How much do you have stored at each place?

Commander COREY. At San Diego, 43,299 tons; at Tiberon, 107,910 tons; and at Puget Sound, 30,755 tons.

Mr. KELLEY. Why do you want to stock up further in case of war there when you have a two-year supply on hand?

Admiral COONTZ. We must have a coal supply.

Mr. KELLEY. The world will not come to an end, and there will be a supply for next year. You have a two-year supply on hand now, and why should you keep filling the bunkers?

Admiral COONTZ. For the safety of the United States, and because every authority on the subject wants it kept there.

Mr. KELLEY. A two-year supply?

Admiral COONTZ. Yes, sir. That does not affect what appears on the naval supply account fund that I can see.

Mr. KELLEY. We would save this freight.

Admiral COONTZ. It certainly would save freight this year, but we would be cutting the reserve down to nothing.

Commander COREY. That is based on the fleet that is expected to be maintained next year.

Secretary DENBY. What has been the custom in the past?

Admiral COONTZ. The custom ever since we have had a fleet has been to gradually but surely create reserve supplies of coal, and particularly in the Pacific, and we are slowly building up to it. We should have out there, having in view that if anything happened that would prevent us from taking any coal out there we would have a supply available.

Mr. KELLEY. How much coal are we going to deliver out there now and the 1st of July?

Commander COREY. None.

Mr. KELLEY. There is no contract in existence for the present?

Commander COREY. No, sir. There is a 15-month supply of coal in the Pacific. The two-year supply includes a large storage at Hampton Roads.

Mr. KELLEY. A two-year supply for what?

Commander COREY. For the vessels that we expect to have on a mission next year.

Mr. KELLEY. For the vessels on this list?

Commander COREY. Yes, sir.

Secretary DENBY. I would like to make one point clear: I do not see what benefit the appropriation would gain by destroying the two years' supply.

Mr. KELLEY. If we have that supply of coal out there, we do not need to ship any more around.

cretary DENBY. We would have to pay it back.

Mr. KELLEY. I am trying to ascertain whether or not you want to build up any supply in addition to what you are using out there, in the way of a further reserve.

Admiral COONTZ. This does not account for any reserve next year.

Commander COBEY. This contemplates cutting down the reserves, and if the coal should be consumed in anything like the quantity it was on this coast at the time of the World War, we would not have more than a four months' supply there.

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Commander COBEY. Based upon the consumption during the World War, we would have only about a four months' supply on the Pacific.

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Commander COBEY. It is the latter.

Secretary DENBY. Then, I think you could drop the reserve for next year.

Admiral COONTZ. No, sir; we could not.

Colonel ROOSEVELT. I do not think the commander understood the question. Commander, the coal we are asking at this time does not replenish our reserve, does it, but it simply lets it remain in statu quo.

Commander COBEY. It reduces it some.

Secretary DENBY. That makes a difference, if it is not to increase the reserve. I understood you to say that it would increase it.

Commander COBEY. It will reduce it about 60,000 tons. We contemplate using the reserve to the extent of 60,000 tons. That is why we have a reserve under the control of the department.

ESTIMATED COST OF COAL.

Mr. KELLEY. What is the price of coal at commercial plants at San Diego and San Francisco, or what could you buy coal delivered to the coast for?

Commander COBEY. At this time it is exactly the same price we pay.

The commercial price at the mines to-day varies from \$1.68 to \$2.40. The price delivered varies according to the kind of boat that can be gotten. If a vessel is going out there light and takes no coal as ballast, the rate may be as low as \$4.50.

Mr. KELLEY. When we gave authority to readjust the coal price last year, at what price did you inventory the coal on the Pacific?

Commander COBEY. On the west coast it was inventoried down to \$8.00 per ton.

Mr. KELLEY. Then, why do you want us to give you \$12 per ton?

Captain LEUTZE. We are asking \$8.849 per ton as an average. It is \$8.00 on the Pacific coast and \$10.45 for the Asiatic Station.

have enough information about the coal.

Admiral Coontz. I think these people can show you sentences, because it is an open and shut proposition.

Mr. KELLEY. Here is what they have said: You are to use some 110,000 tons of coal on the Pacific. No coal there; it has already been put there and it is held in the account; it was scaled down by authority of law for the cost to put it there to \$8 a ton, and you are going to pay for it when you reimburse that fund. Now, that is your freight proposition, in addition to the cost of Hampton Roads, and it goes without saying, if that coal you use in the Atlantic would not bring the freight up so that the average of all your coal will be

Admiral Coontz. If I understand it correctly, and what you told me is true, I utterly disagree with you.

Mr. KELLEY. Well, you state it.

Admiral Coontz. Well, I will state that if we use coal in the Atlantic at such-and-such a price and 100 tons—

r. KELLEY. Admiral, you are a good sailor but a poor mathematician.

r. REED. I would like to make the further statement that on the Pacific coast we will use approximately 140,000 tons, of which 45,000 come from stock at the price of \$8 per ton.

r. KELLEY. Why do you not use it all?

r. REED. They will not permit the depletion of the reserves more than 45,000 tons.

r. KELLEY. Who will not permit it?

r. REED. The Secretary and Operations. And 95,000 tons must be sent out there for replacement.

r. KELLEY. You say you are figuring on sending 95,000 tons out there for replacement?

r. REED. Yes, sir.

r. KELLEY. Why did you not say so? You said you were sending 110,000 tons.

Captain LEUTZE. Ninety-five thousand tons to Pacific points and 15,000 tons to the Asiatic station, making 110,000 tons.

r. KELLEY. That is worse yet.

Captain LEUTZE. No, sir; because the Asiatic is a very much higher price.

Commander COBEY. I think I can clear the whole thing up. The rates are based roughly—

r. KELLEY (interposing). Very.

Commander COBEY (continuing). On the consumption of 170,000 tons of coal in the Pacific and on the Asiatic Station; of that amount we estimated that we will deplete the reserve coal on the Asiatic Station by 15,000 tons and deplete the reserve on the Pacific coast 5,000 tons; that is a total of 20,000 tons and leaves 150,000 tons to be transported from the east coast; taking the shipments from the Panama Roads it gives us 110,000 tons to be transported out there of the 170,000 tons to be used, of which 95,000 tons are to be sent to Pacific coast points and 15,000 tons to Asiatic points. The coal to be sent to the Pacific coast points will cost us \$12.29 a ton and the 15,000 tons to be sent to the Asiatic Station will cost us \$20.29 a ton.

That gives the exact figures that Admiral Coontz spoke of.

r. KELLEY. If you buy the Japanese coal instead of buying it out of Asia at \$10 a ton, you will save \$6 a ton out there and make a difference in your averages; and if you should use a little more of your stock on the Pacific coast than you have calculated at 15,000 tons, that would make a still further difference.

Commander COBEY. Those two things are contingencies on which we cannot safely calculate and for this reason: Take the Asiatic coal. Admiral Robison pointed out, it may not be of a quality which could be used in the boilers of our ships.

r. KELLEY. I take his word for that; he says it can.

Commander COBEY. Well, I think the admiral meant that it depends on the kind of Japanese coal.

r. KELLEY. No; he said that it can be used, and he is one of the officers who says what he means and strikes straight from the shoulder and I like him. Go ahead.

Commander COBEY. I was going to say that he would probably want to use the coal first, although we know some of that coal can be used.

able.

Mr. REED. We did not add \$3 a ton to the coal used on the average—

Mr. KELLEY (interposing). How much coal have you on the Atlantic?

Commander COBEY. We have adequate quantities stored.

Mr. KELLEY. That does not mean anything to me. I want to know.

Commander COBEY. There are two storages at Hampton Roads containing 278,000 tons.

Mr. KELLEY. That you can buy at how much a ton does it cost?

Commander COBEY. \$5.29.

Mr. KELLEY. Two hundred and seventy-eight thousand tons?

Commander COBEY. Yes, sir.

Mr. KELLEY. And you are figuring on replenishing that tonnage?

Colonel ROOSEVELT. No.

Mr. KELLEY. Yes; the average is \$8.86.

Commander COBEY. The bulk of this coal is consumed away from Hampton Roads; a very little is consumed at Hampton Roads.

Mr. KELLEY. But it is stored there?

Commander COBEY. Yes, sir.

Mr. KELLEY. And at the point of storage it is \$5.04 at the present rate?

Commander COBEY. \$5.29.

Mr. KELLEY. You add 25 cents for handling?

Commander COBEY. Yes, sir.

Mr. KELLEY. Now, where else have you coal stored on the Atlantic?

Commander COBEY. At Portsmouth there is none except what is required for current use—a one month's supply; at Boston there is a one month's supply; at Melville there are 21,503 tons. That is the storage place, coming down the coast, where there is any considerable quantity stored.

Mr. KELLEY. At what price did you appraise that?

Commander COBEY. At just exactly what it cost us to get it in.

Mr. KELLEY. I know; but I want figures.

Commander COBEY. \$6.14 a ton.

Mr. KELLEY. Where is Melville—in Rhode Island?

Commander COBEY. Yes, sir.

Mr. KELLEY. \$6.14 delivered in Rhode Island?

Commander COBEY. Yes, sir. That is cheaper than it can be bought commercially there, but we send it up by water. At Constable Hook, which is in New York, there are 25,434 tons of emergency storage. These are the only two storages until we get to Hampton Roads. Philadelphia there is none in storage; at Key West there are just 10 tons, which is about a two months' supply of coal, depending on the number of ships that go in there. That is all that is stored on the East, until we get to Guantanamo and Panama; at Panama we have 78,317 tons stored.

Mr. KELLEY. At how much did you appraise that?

Commander COBEY. \$8.29 a ton.

Mr. KELLEY. That is even less than your average?

Commander COBEY. Yes, sir; because the average includes the Pacific and the Asiatic.

Mr. KELLEY. How much at Guantanamo?

Commander COBEY. There are 18,039 tons at Guantanamo, and all on this coast.

Mr. KELLEY. How about your contracts for deliveries on this coast the rest of the year?

Commander COBEY. We have no contracts extending past the 31st March.

ESTIMATED COAL CONSUMPTION.

Mr. KELLEY. So you do not expect any coal to be delivered the rest of the year?

Commander COBEY. Yes, sir; we expect to extend those contracts, but that is dependent on the coal strike.

Mr. KELLEY. How much coal do you expect to have delivered at Hampton Roads and these other points the rest of the year out of current appropriation?

Commander COBEY. Only such coal as is needed to
Mr. KELLEY. That does not give me any information.

Commander COBEY. Approximately 27,000 tons.

Mr. KELLEY. And any other place?

Commander COBEY. Yes, sir.

Mr. KELLEY. Where else?

Commander COBEY. Contracts are being extended to provide no fixed quantity, but for such quantity as the Navy will

Mr. KELLEY. How much do you estimate that will be?

Commander COBEY. These must be estimates only.

Mr. KELLEY. Certainly.

Commander COBEY. At New York, for the remaining time of this year, beginning April 1, there will probably be not 4,000 tons; at Philadelphia and Boston it is very probably not over 2,000 tons at each place.

Mr. KELLEY. Most everything is at Hampton Roads.

Commander COBEY. Yes, sir.

Mr. KELLEY. I suppose you figure that Hampton Roads is a real base, your operating base on the Atlantic, is it not?

Commander COBEY. Yes, sir.

Mr. KELLEY. It is called that, is it not?

Commander COBEY. Yes, sir.

Mr. KELLEY. The ships put in there regularly.

Commander COBEY. That is where our greatest consumption of coal is.

Mr. KELLEY. And they go in and out from that place?

Commander COBEY. Yes, sir.

Mr. KELLEY. Almost exclusively?

Commander COBEY. Yes, sir; and it is by far the greatest consumption of coal.

Mr. KELLEY. Next year you expect to use coal on a much larger scale than you used coal this year?

Commander COBEY. No, sir.

Mr. KELLEY. You have that information, do you not?

Captain LEUTZE. The average number of miles which is 1,350 miles a month, as estimated for this year.

Mr. KELLEY. That is as against how much for last year?

Captain LEUTZE. The estimate for 1922 was 1,350 miles a month and was changed by instructions to 1,000 miles per month.

Mr. KELLEY. So you want to run up to 16,200 miles from 12,000 miles.

Captain LEUTZE. That is what I am instructed to do.

Mr. KELLEY. You were instructed to make that a 33 1/3 per cent greater use of coal for next year than the past year. Did you do that as to oil, too?

Captain LEUTZE. The oil was estimated for in the same way as the coal.

Mr. KELLEY. So that these tons of coal, you are 33 1/3 per cent greater than they would be in the past year as you did this current year?

Captain LEUTZE. Not that much.

Mr. KELLEY. Well, you go from 12,000 miles up to 16,200 miles, 4,000 miles more, and that is one-third of 12.

etary DENBY. May I interrupt there and say that economies in have been going on at a frightful rate?

KELLEY. We are trying to get the amount of coal they are for next year.

tain LEUTZE. Port consumption comes in there, and it would all for steaming.

ESTIMATE OF MILES OF STEAMING.

KELLEY. You are figuring on running all of these vessels 16,000 whereas they ran only 12,000 miles this year.

tain LEUTZE. Pardon me.

KELLEY. You did not say that?

tain LEUTZE. No, sir; I said that was the corrected estimate 22, and I did not say anything about the miles they had run ar.

KELLEY. How many did they run?

tain LEUTZE. I said that the estimate for 1922 was figured on sis of 1,000 miles a month, or 12,000 miles a year.

KELLEY. Well, are they running more than that?

tain LEUTZE. I can not answer that.

airal COONTZ. I can.

KELLEY. Well, all right.

airal COONTZ. The battleships in the first six months—

KELLEY (interposing). These are coal burners, and I am only g about coal.

airal COONTZ. I can give that to you, but I just want to get he record that the 14 battleships in 6 months averaged 7,963

KELLEY. You have not that many coal-burning battleships.

airal COONTZ. I can pull that out for you.

KELLEY. Don't put anything in that will confuse us, but if n put in anything that will straighten us out, do it. I want to whether it is true that you are increasing the steaming from an re of 1,000 miles a month up to 16,000 miles a year on your coal- g ships.

airal COONTZ. No, sir.

mander HILL. I can give you those figures now.

KELLEY. This gentleman says that is what he has done and y it is not.

tain LEUTZE. Not the coal burners; no, sir. I have talked about battleships. Six coal burners will be in port, and it is esti- that they will burn two-thirds of the port consumption, be- they will be in ordinary for the full year. There are only two rners that are going to steam at the rate of 16,200 miles. I lerstood your question, sir.

KELLEY. How about the other ships?

tain LEUTZE. The other ships on this list are based on steaming miles, with the exceptions I noted before.

KELLEY. For every ship that is on the list, except those battle- you have put down coal enough for them to go 16,000 miles.

airal COONTZ. No, sir.

KELLEY. Have you not done that, Captain Leutze?

Captain LEUTZE. I have not the figures shown steamed this year, sir.

Mr. KELLEY. Do you not know how far the light this year?

Captain LEUTZE. They have not been built.

Mr. KELLEY. Have you no idea on what the estimate

Captain LEUTZE. Yes, sir.

Mr. KELLEY. How far do you expect they will go in

Captain LEUTZE. One light cruiser is to be in commission this year and is to go 16,200 miles; the other two are to be in commission next year and are to go at the rate of 16,200 miles per month for the nine months.

Mr. KELLEY. They will go just as far in the nine months as the other one. If you get them they would go in 12.

Captain LEUTZE. No, sir; I said at the rate of 16,200 miles per month for nine months.

Mr. KELLEY. What are the next ships you have the

Mr. KELLEY. We can probably shorten this a little bit, because I ask in your statement this morning you covered it pretty well.

Captain LEUTZE. Yes; I read off a list of the ships that were expected from the 16,200 miles and gave the number of miles they were to steam this coming year.

Mr. KELLEY. I remember you said the colliers were to go 50,000 miles.

Captain LEUTZE. Yes, sir; cruise 50,000 miles.

Mr. KELLEY. They come into port and get some fuel, get the coal, and go back to the fleet, and that is why they go so far in a year.

Captain LEUTZE. Admiral Coontz will know about that.

Mr. KELLEY. Do you not know? You are an officer of considerable standing.

Captain LEUTZE. That is what colliers do as an ordinary thing, but I do not know how this figure of 50,000 was arrived at.

Mr. KELLEY. That is why the colliers go farther than battleships, do they not?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. They do not add anything to the freight, do they?

Captain LEUTZE. No, sir.

Mr. KELLEY. How many miles did those ships go during the first months?

Colonel ROOSEVELT. The *Arkansas*, in five months, went 10,302 miles; the *Delaware*, in six months, went 8,000 miles; the *North Dakota* went 7,656 miles in six months; the *Florida*, 7,042 miles; *Wyoming*, 9,825 miles; the *New Mexico*, 4,614 miles; the *New York*, 5,119 miles; the *Texas*, 4,181 miles; the *Oklahoma*, 13,508 miles; the *Arizona*, 12,626 miles; the *Nevada*, 12,069 miles; the *Mississippi*, 4,700 miles; the *Pennsylvania*, 10,074 miles; the *Idaho*, 5,212 miles; and the *Tennessee*, 6,926 miles, all of the latter in six months; and one, the *Arkansas*, in five months.

Mr. KELLEY. What were they doing the other days?

Colonel ROOSEVELT. These figures cover the first six months of the rent year, and the average for the six months is 7,963 miles, or, roughly, 8,000 miles, and at the rate of 16,000 miles per year.

Admiral COONTZ. I think that the record of last year shows that they figured on steaming one day in three.

Mr. KELLEY. I remember about that day business, but it was not very satisfactory, because we did not know how many hours there was in the day.

Admiral COONTZ. And this figures on their steaming four and a half days a month on the average, which is pretty small, we think.

Mr. KELLEY. Would 10,000 miles a year be 100 miles every three days?

Captain LEUTZE. No, sir; 12,000 miles a year; 100 miles every three days would be 1,000 miles a month or 12,000 miles a year.

Mr. KELLEY. Then, 100 miles every three days and 30 days in the month would make 1,000 miles a month or 12,000 miles a year?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. You are getting better in your arithmetic.

Captain LEUTZE. I do not know about that; but that is what it comes to.

Mr. KELLEY. Last year that is what you told us you based your estimate on.

Mr. REED. That is what the estimate on page 898 of the bill was based upon.

Colonel ROOSEVELT. Mr. Chairman, we have been using a comparison. Would it not be a good thing to go back to what rate we steamed our battleships in 1916?

Mr. KELLEY. Will you take the same costs, too?

Colonel ROOSEVELT. No; that would not do, and that is because the heating units would not be the same.

Mr. KELLEY. How far did you run in 1916?

Colonel ROOSEVELT. The average miles steamed by battleships and cruisers in commission—

Mr. KELLEY (interposing). Give us the same ships.

Colonel ROOSEVELT. Fifteen thousand eight hundred and thirty miles; that is the average.

Mr. KELLEY. About the same thing.

Colonel ROOSEVELT. Yes, sir; just about. Average miles by destroyers, 15,386.

Mr. KELLEY. We have not gotten to the destroyers as yet, but not far off from what you did before the war, what you are doing now, and what you want to do next year.

Colonel ROOSEVELT. It is pretty much of a muchness.

Mr. KELLEY. That helps us very much and clears it up. We have the other figures, so we can adjust your freight from Hampton Roads to the Atlantic and the Pacific, coals, reserves and the readjustment of prices which have also been made.

Colonel ROOSEVELT. Bearing in mind one thing, that we coal mines on the Pacific coast, and we can not afford to keep a coal reserve on the Pacific coast for that reason, because to go overland or through the canal.

Mr. KELLEY. I understand that very well.

Secretary DENBY. And may I suggest another thing? We are continually called upon for extra and unexpected work on these ships.

Mr. KELLEY. I would not respond. I would say I did the money.

Secretary DENBY. You can not help respecting such a resolution as Congress passes a resolution.

Mr. KELLEY. That is true, and we make you lots of trouble.

Secretary DENBY. We have to obey the orders of Congress. I think you ought to add something for these unexpected things. I can recite them to you in a half minute—totally unexpected things which cost tens of thousands and hundreds of thousands of dollars.

Mr. KELLEY. This coming year I think Congress is going to be very careful not to make any demands on you.

Secretary DENBY. It is not only Congress; it is an unexpected demand from South America or a request from the State Department which we have to obey.

Mr. KELLEY. I know there are certain peace duties which we have to perform.

Secretary DENBY. Not only peace duties but unexpected things.

Mr. KELLEY. But you really do not need to run 16,000 miles in addition to those; you can take those in.

Secretary DENBY. I am serious about this, and I think it is very important to have in the record that we have allowed for steaming on a normal operating plan. We must have an operating plan; must know reasonably well in advance what we are going to do the fleet in the year, and if we have an operating plan that plan not take in the unexpected calls that are made upon the Navy to which it must respond as, for instance, the bringing home of unknown dead, taking a potentate to Africa, sending destroyers searches for vessels, or using the special-service squadron to send mines here and there. So I think there should be a margin of 7 in the coal allowance to take care of all those things.

Mr. KELLEY. No doubt they are in these other figures.

Secretary DENBY. When we make an operating plan we try to live up to it and we do live up to it, but when we have these unexpected things they have to be met, and then when we come to the end of the year and have a deficiency we meet much criticism, but certainly we not avoid a deficiency if you do not give us any margin.

Mr. KELLEY. You must avoid a deficiency on this thing and there not be any deficiency. We are going to give you a certain sum of money this year and you must not go beyond it.

Admiral COONTZ. Let me give you a concrete example. We want to get two ships home from abroad and put them out of commission, *Albany* and the *New Orleans*, and it will cost \$44,000 to get them home.

Mr. KELLEY. But it is not an exact science, whether you run 16,000 miles, 15,000 miles, or 14,000 miles; with some ships you run 8,000 miles and others 10,000 miles, 12,000 miles, and 13,000 miles.

Admiral COONTZ. But when we lay out a plan for target practice for other manuevers, and know what we have to start with, it is not an exact science, except as to these side things, of which we have 20, 30, or 40, amounting to hundreds of thousands of dollars.

Mr. KELLEY. In making up your plan you should take into account these side things and allow yourselves a reasonable margin for them, and make your plans accordingly in time of peace.

Admiral ROBISON. The reserve fuel on the Pacific coast, particularly in coal, is already very much lower than it used to be.

Mr. KELLEY. Because we did not have any ships out there.

Admiral ROBISON. But we had an ocean there.

Mr. KELLEY. We did not have any ships and, of course, we did not use any coal, any fighting ships, until now.

Admiral ROBISON. There was very much more coal than now when the fleet went around.

Mr. KELLEY. President Roosevelt wanted to impress certain people and he knew how to do it.

COAL CONSUMPTION.

Admiral ROBISON. In Puget Sound and San Francisco there was very much more coal than we have. Since the introduction of oil there has been a very great reduction in the coal consumption. Our oil fuel consumption in the Navy was greater 10 years ago than it is to-day.

Mr. KELLEY. Oh, Admiral, what do you mean by that?

Admiral ROBISON. It was greater in tons. The total fuel consumption to-day is less than it was then.

MR. KELLEY. I have no trouble about the price of the Roads—\$5.29 at the present moment in your storehouse.

Admiral PORTER. But I thought you were in doubt about the average price of the coal for the whole establishment during the coming year.

MR. KELLEY. I think you are right.

Admiral COONTZ. \$8,849.

MR. KELLEY. I have grave doubts about that.

USE OF JAPANESE COAL.

Secretary DUNBY. I should like to ask whether it is our desire that we use Japanese coal?

MR. KELLEY. That is a matter of science. We cannot say for the admiral's word. He said it is just as good, except two things. What is the difference whether the coal is stored in the storehouse or you buy it in the market when you need it?

Admiral ROUSSEAU. It has been used in small quantities.

retary DENBY. Then there is the fact that it causes deterioration of the ship. That is one thing. You want us to have the best; you do not want us to use inferior things. Second, buying coal from foreign country, across the Pacific—personally I do not believe it is a good practice.

Mr. KELLEY. We buy lots of things of foreign countries.

retary DENBY. But not coal for war vessels.

Mr. KELLEY. There is absolutely no sense in carrying coal from foreign ports to China at \$20 a ton if you can save \$6 a ton, taking into consideration the difference in quality.

Admiral ROBISON. One of the major reasons against the use of Japanese coal on the ships is not only the deterioration in the quality, but also the great decrease, amounting to one-third, in the speed of action. Increased frequency of refueling is necessary.

Mr. KELLEY. What do you mean by that?

Admiral ROBISON. If you fill a ship's bunkers with Japanese coal you cannot do the work that can be done with American coal.

Mr. KELLEY. Why not buy the coal over there and put it in the bunkers?

retary DENBY. With American coal the ship can steam farther.

Admiral ROBISON. For certain purposes four times as many ships would be required as if American coal were used. It is a question of the necessity of the coal supply from the field of operation.

Mr. KELLEY. In ordinary times you can use a little inferior coal over there without carrying the coal so far.

retary DENBY. It is not economical; it is an absolute loss to use inferior coal.

Mr. KELLEY. You have not given it any consideration until to-day?

retary DENBY. I have heard enough here to-day so that I would want to go before the American people and make the statement that we were going to use inferior coal that would require refueling the ship more frequently.

Mr. KELLEY. What kind of coal are you using?

Admiral ROBISON. Pocahontas for one.

Mr. KELLEY. Digging it out of the American soil makes no difference.

retary DENBY. It has been demonstrated that the Japanese coal is inferior.

Mr. KELLEY. Are we using any coal at all from any mines in the United States of as poor quality as the Japanese coal?

Admiral ROBISON. No; there is not any, except in Illinois. That is the coal you use in Detroit.

Mr. KELLEY. Are you using any Illinois coal?

Admiral ROBISON. On board ship?

Mr. KELLEY. Anywhere.

Admiral ROBISON. Yes, sir.

Mr. KELLEY. Where are you using it?

Admiral ROBISON. On the Great Lakes.

Mr. KELLEY. Where else?

Admiral ROBISON. Nowhere that I know of.

Mr. KELLEY. Where is the best coal?

Admiral ROBISON. The best coal comes from the Pocahontas region of West Virginia.

Mr. KELLEY. Do we dig use Pennsylvania coal?

Admiral ROBINSON. Yes, sir; some.

Mr. KELLEY. Is it the same kind of coal?

Admiral ROBINSON. It is not identical. There is some variation in the heat units.

Mr. KELLEY. What are the British thermal units of these coals?

Admiral ROBINSON. Up to 15,500.

Mr. KELLEY. And of the Pennsylvania coal?

Admiral ROBINSON. Up to 15,000.

Mr. KELLEY. And the Japanese coal?

Admiral ROBINSON. It will vary—11,000 and sometimes 13,000—sometimes 14,000 or 15,000; there is a wide variation.

Mr. KELLEY. Is there any variation in our own coal?

Admiral ROBINSON. Yes, sir; but not so great.

Mr. KELLEY. What is the variation?

Admiral ROBINSON. The minimum is 14,000 for naval use.

Mr. KELLEY. And the maximum 16,000?

Admiral ROBINSON. About 15,250 is the best. The Japanese is different in quality and character. You have to provide grate bars and all that sort of thing, but it can be used. If you use Japanese coal, you require an additional number of firemen.

FUEL OIL.

Mr. KELLEY. Now, fuel oil. How much fuel oil are you asking for?

Captain LEUTZE. We are asking for 5,524,456 barrels, or \$11,949,398.

Mr. KELLEY. Does that provide for more ships in commission than we had last year?

Captain LEUTZE. For a less number of ships than we had last year.

Mr. KELLEY. Last year you asked for 3,649,048 barrels. You are asking for 2,000,000 more barrels, in round numbers, for the ships. Is that right?

Captain LEUTZE. We are asking for fuel oil for these ships in accordance with the operation plan.

Mr. KELLEY. You are asking for 2,000,000 more barrels, in round numbers, than you estimated for this year and you will have more ships?

Captain LEUTZE. Yes, sir; 2,000,000 more than the amount allowed in the revised estimate. The basis is different.

Mr. KELLEY. I understand that. Please give us the details of it.

Captain LEUTZE. The details of that are that all the ships are 16,200 miles less than those which I enumerated this morning in my summary of those is on this first page of the small sheets.

Mr. KELLEY. Just run down that list if you please.

Captain LEUTZE. Battleships, first line, 768,691 barrels, or 768,691 barrels for battleships in ordinary.

Mr. KELLEY. Just run down that list if you please.

Captain LEUTZE. Battleships, first line, 768,691 barrels, or 768,691 barrels for battleships in ordinary.

Mr. KELLEY. Is that because they burn coal?

tain LEUTZE. Yes, sir; all in ordinary burn coal. Four cruis-
ond line, they burn coal.

KELLEY. We should reduce those cruisers to three?

miral COONTZ. No, sir.

tain LEUTZE. Three light cruisers, first line, 177,957 barrels.

nel ROOSEVELT. Those three light cruisers were not in com-
last year?

tain LEUTZE. No, sir.

nel ROOSEVELT. That is new, and so is the aircraft carrier.

tain LEUTZE. Aircraft carrier, 58,355 barrels; 1 mine layer,

barrels; 65 destroyers, active, 1,259,540 barrels; 50 destroyers,

-e, 853,020 barrels; four light mine layers, 118,618 barrels; 84

arines, 179,553 barrels; 10 patrol gunboats, 53,051 barrels; 5

oyer tenders, 166,359 barrels; 7 submarine tenders, 118,224 bar-

1 aircraft tender, 39,576 barrels; 7 oilers, 485,808 barrels; 2 am-

on ships, 94,337 barrels; 5 cargo vessels, 213,212 barrels; 3

orts, 276,340 barrels; 1 hospital ship, 59,346 barrels; 8 tugs,

barrels; 10 mine sweepers, 169,200 barrels; 4 auxiliaries, mis-

sious, 82,194 barrels; 14 seagoing tugs for shore activities, 167,680

is; 5 shore base submarine tenders, 60,799 barrels; 19 oil barges,

0 barrels; making a grand total of 5,524,456 barrels.

. KELLEY. The destroyers are to go how many miles?

ptain LEUTZE. The destroyers, active, 16,200 miles and in re-
12,000 miles.

. KELLEY. How much oil does it take to run a destroyer 100
at an economical speed 15 knots.

ptain LEUTZE. Two thousand six hundred and fifty-six gallons.
is. 15 knots. They burn 398.4 gallons per hour, a little more
six hours, or 63 barrels for 100 miles.

. KELLEY. Do you agree with that figure, Admiral? Does it
that much oil to run a destroyer 100 miles, 60 barrels, at the
mical speed of 15 knots?

miral ROBISON. I judge that is not far wrong. It is about
to the engineering standards, which standards are based upon
est performances of vessels of that class under ordinary cruis-
onditions. They do not have to break a record to do that.

. KELLEY. That is, they could run on less oil?

miral ROBISON. I believe that if every ship were in first-class
in all particulars, if the personnel were thoroughly trained in
tails, and if the weather were perfectly good all the time, that
would run for less.

. KELLEY. How much did these destroyers of Admiral Strauss

miral ROBISON. The best division of six destroyers got about
cent better, 23 gallons per knot. This is 24.5.

. KELLEY. After they had followed out all of your instructions?

miral ROBISON. Yes, sir. In past practice the results have not
so good as this. In 1913 we did not know much about it. We
oil burners and they used per knot 39.72 gallons, practically a
barrel. This estimate is based on 24.5 gallons per knot. In
they used 31.34 gallons per knot. The first half of this year
verage was 30.86 gallons per knot. The performance of these
yers out in Asia at low speed was twenty-three and a fraction

gallons, which is a little bit better than this. The performance of the average destroyer next year will not equal the efficiency of the average destroyer which this figure is based.

Mr. KELLEY. This would be a fair amount to base it on for 100 miles?

Admiral ROBISON. I am of the opinion that they will use much on the average next year. I should hope at the end of the year that they would be running on 58 barrels.

Mr. KELLEY. You said that he did very much better on this than that there was a saving of about 50 per cent?

Admiral ROBISON. No, sir; that was the saving made on the consumption. Of course, the port consumption was very much less, he cut that in two.

Mr. KELLEY. On the destroyers?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. How much do you figure it would take to run a destroyer in port every 24 hours?

Admiral ROBISON. You mean if out of commission?

Mr. KELLEY. No.

Admiral ROBISON. Kept in full commission?

Mr. KELLEY. Yes, sir.

Admiral ROBISON. In port in 1913—

Mr. KELLEY (interposing). A destroyer?

Admiral ROBISON. I am talking of a destroyer. In 1913 it was 48.06 gallons per hour. In 1921 it was 48.30 and the first of this year it has been cut to 35.

Mr. KELLEY. Eighteen or nineteen barrels a day?

Admiral ROBISON. Somewhere around 20 barrels a day. When a vessel is at yard undergoing repairs it will receive from the yard certain electric light, power, and water, and its consumption is expected to fall to approximately 25 gallons per hour, or 250 gallons a day.

Mr. KELLEY. Twelve or fifteen barrels?

Admiral ROBISON. Around that. I should anticipate that at the end of next year, if you have 65,000 men only, that we will be able to put on these destroyers sufficient officers to take care of them properly. I think to properly govern the actions of the men that run the ship we will have a little bit better trained men. I therefore anticipate that the port fuel consumption of destroyers may be as low as 30 gallons an hour; that is, 720 gallons a day. That is 15 or 16 barrels. I think that is about what it will come to for the average destroyer at the end of next year. With the destroyers manned to 65,000 and without a cut in the number of officers.

Mr. KELLEY (interposing). You can put more officers on a destroyer and they can take better care of the machinery at sea than you can out of your instructions?

Admiral ROBISON. Instead of having one officer doing engine duty I anticipate that they will have two, and the result will be that we will have better enforcement.

Mr. KELLEY. Much more efficiency?

Admiral ROBISON. I think if we had more officers on the ship we would have a more efficient boat.

Mr. KELLEY. That is, if you undertook to run more destroyers than you had officers to take care of—

Admiral ROBISON (interposing). Experienced officers.

Mr. KELLEY. The cost of operation would increase?

Admiral ROBISON. It is bound to. That is responsible in no small measure for the recent high cost of operation of all classes of naval vessels, a lack of training of the officers, primarily the officers, and of the men.

Mr. KELLEY. The engineers on these boats are petty officers?

Admiral ROBISON. No, sir; commissioned officers.

Mr. KELLEY. I know that there are commissioned officers, but do the petty officers really operate the engine room?

Admiral ROBISON. We have not really the habit of regretting it when we get our hands dirty.

Mr. KELLEY. You have allowed 1,259,540 barrels for 65 destroyers active commission?

Captain LEUTZE. Yes, sir.

STEAMING AND PORT CONSUMPTION OF OIL.

Mr. KELLEY. How do you divide that 1,259,540 barrels of oil as between steaming and port consumption?

Captain LEUTZE. We took for port consumption per day 1,218 tons. That figure was obtained by taking the reports received in stations from 259 destroyers and getting the average.

Mr. KELLEY. How many barrels would that be in port per day?

Captain LEUTZE. Twenty-nine barrels.

Mr. KELLEY. Admiral Robison says that out in Admiral Strauss's opinion, where he has been watching the matter very carefully, they've cut the consumption down to 18, so that you are allowing for pretty liberal consumption there. That would run into quite a lot of money. They would be about 300 days in port, would they not? How do you divide the time between port and sea?

Captain LEUTZE. This time has not been fixed, but a formula is now worked out for it.

Mr. KELLEY. Give it roughly; we will not be technical.

Captain LEUTZE. It is the number of hours in a year that we subtract plus the number of hours in port. It is 50.7 per hour in port.

Mr. KELLEY. Steaming 100 miles every third day would give you only 6 hours out of 72 hours.

Admiral ROBISON. It averages more nearly 45 days under way and 320 days in port for destroyers. Battleships steaming at 12 knots would be underway 56½ days and 308½ days in port. Destroyers steaming only 12,000 miles would be underway 33½ days and in port 332½ days.

Mr. KELLEY. On the basis of 320 days in port, you figure 29 tons of oil per day for each one of these destroyers. That is the figure, but if you estimate 18 barrels per day, it would be a vastly different figure. Which figure do you think we could safely adopt here? Possibly we could split the difference between the two.

Admiral COONTZ. No, sir; they have taken the average for 259 destroyers for the year and for the past six months. Admiral Robison has presented you with figures based upon only six destroyers, and these are the best we have. They were the ones that could make long cruises, and it is possible that they made that record. I do not doubt that all, but the others can not do that.

Mr. KELLEY. They are all new boats?

Admiral COONTZ. No, sir; they are not all boats of that class and I do not think that Admiral Robison will tell you that we go on the basis of the fuel consumption of those 18 destroyers. I have the absolute facts down to the 1st day of January for the destroyers.

Mr. KELLEY. Admiral Robison said that he had issued instructions which he thought would make quite a difference when lowered out. He said that they had been tested out by Admiral Strauss with very fine results, and he makes the point now that, possibly with not so many destroyers operating, and with a little closer vision, a very great reduction in the port consumption of fuel can be brought about. You could, at least, go below the consumption the past six months, because you will be getting the whole thing better in hand and stronger all the time.

Admiral COONTZ. What we are talking about has been going for years. It is not a new thing, and Admiral Robison read figures for 1913 and 1914. We have been coming down all the time and we have the actual facts as to 259 destroyers up to January.

Mr. KELLEY. If Admiral Strauss can handle the destroyers port on 18 barrels of oil per day, you will not ask us to give 29 barrels per day for the rest of the outfit for 320 days in port.

Colonel ROOSEVELT. What was the total estimate?

Captain LEUTZE. One million two hundred and fifty-nine thousand five hundred and forty barrels.

Admiral COONTZ. We keep a card for every destroyer.

Mr. KELLEY. I have no doubt of that, and I do not question accuracy of the statement that during this year your destroyers used that amount of oil. In fact, I possibly have complained a little about that, but I was not complaining about anybody personally. But now, when we are up against this proposition, and when Admiral Robison says that Admiral Strauss cuts this consumption down to 18 barrels per vessel, I do not know whether Congress will be willing to give you 29 barrels for each of your destroyers in port day.

Admiral COONTZ. Admiral Robison, have you gone over the figures?

Admiral ROBISON. I will be glad to do so.

Mr. KELLEY. That is the experience of the past six months.

Admiral COONTZ. These are the Asiatic ships that we are talking about.

Mr. KELLEY. Of course, if Admiral Robison has made any error about it—

Admiral ROBISON (interposing). I have not made any error about it. I have not said what they have done, but I said what the reports show, and I believe that the reports are absolutely correct.

Mr. KELLEY. Do you not think that with fairly good supervision or with the supervision that the other submarines had, and constant hammering of these officers to follow your instructions the same thing could be done at San Diego?

Admiral ROBISON. In time.

Mr. KELLEY. What would be a fair allowance to make for inexperience of the boys at San Diego as against the experience of those under Admiral Strauss?

Admiral ROBISON. I am of the opinion that the destroyers at San Diego that are operating on the 50 per cent basis are using less in port than those with the division.

Mr. KELLEY. We are saving money to-day "to beat the band."

Admiral ROBISON. There is no question about it. If you take those 50 per cent boats and bank them together, as they are now doing, with four or five side by side, and let one of them supply steam to the others by means of a pipeline from the one that is steaming to all the others, then you will supply four or five of them with steam from only one of the boilers radiating heat and you will be able to save a great deal. That is one way in which we have been saving a great deal of fuel oil. Most of these 50 per cent destroyers have recently been ordered out of commission, so we can not expect much saving in this way next year.

Mr. KELLEY. In the last six months at other places that was not done?

Admiral ROBISON. That has been done in the case of those operating on the 50 per cent basis.

Mr. KELLEY. Out there?

Admiral ROBISON. And in Charleston, also.

Mr. KELLEY. In the early part of this year those boats were not doing that way?

Admiral ROBISON. No, sir; we had not furnished them the equipment.

Mr. KELLEY. Now, we have passed that stage, and we have acquired the experience and understand the problem. I think the main problem was the problem. Sometimes when a result is obtained no one knows what the problem is, and that knowledge does not come until we have wasted some money. Suppose we split the difference between 18 and 29?

Admiral ROBISON. Suppose you give more than they should use? They will not use it.

Mr. KELLEY. Yes; they would.

Admiral ROBISON. I do not believe they would.

Mr. KELLEY. Those destroyers with 50 per cent crews on board are in a position where they can do a lot of steaming, and I do not believe that anybody in the Navy Department could keep track of their daily steaming.

Admiral COONTZ. Absolutely, hour by hour.

Admiral ROBISON. Not only that, but we do keep track of it.

Admiral COONTZ. We keep track of it every hour.

Admiral ROBISON. I can show you that the way they are doing it is much better than you imagine.

Secretary DENBY. They report the exact number of gallons of fuel consumed during every month, and a summary of it is sent to the department. I went into that on shipboard, and when we reached the end of the voyage we knew exactly not only how much fuel was consumed each day but how much was consumed during each watch and each hour of the day.

Mr. KELLEY. Admiral Coontz would not know until the report came in, perhaps, several months later.

Secretary DENBY. They can tell which watch makes the better record on fuel consumption.

Mr. KELLEY. When you allocate the fuel you can hold them well in check, but when they are having summer maneuvers have enough men on board to navigate the ship I doubt if an admiral could tell at any given time just where those ships are.

Admiral COONTZ. I know daily what they are doing, the ports I am referring to are the ones on which is depending the standing of the commanding officer, as well as many other things including that of prize money.

Mr. KELLEY. I know, but while the ship is actually going I know exactly how much oil she is using or is going to use?

Admiral COONTZ. I do at the end of the month, or when they come in.

Mr. KELLEY. You do not get that information every day, but have to leave that to the discretion of the commander of the ship.

Secretary DENBY. But the commander wants to make a record of himself and for the ship.

Mr. KELLEY. Well, what would you say about this, Admiral?

Admiral ROBISON. The way they are doing it out in Asia is to comply with some orders that have been issued by Admiral Coontz which have placed them upon a specific fuel allowance for all ships. In the case of the destroyers under Admiral Strauss they have saved 762,357 gallons on their allowance.

Mr. KELLEY. They did not use up all the oil?

Admiral ROBISON. No, sir; they did not use it. That is what I wanted to say.

Mr. KELLEY. They did the work all the same, but saved that oil?

Admiral ROBISON. If you allow them too much they will not use it. We are not wasters of Government money.

Mr. KELLEY. Admiral Strauss was over there—

Admiral ROBISON (interposing). He could get away with it anybody could; but he would not do that, and not one naval officer that is in authority would do that.

Mr. KELLEY. But there are circumstances sometimes in which you can not quite control it. You do not always have old experienced officers like Admiral Strauss in charge of them.

Admiral COONTZ. He is not in charge of the destroyers, but he is the admiral. The officer in charge of them is a young man. Dowell is in charge of them, and you know him. They are all the same, and they are not cruising around for nothing. They are trying to bring the fuel consumption down as much as they can, because it helps their own records.

Mr. KELLEY. How about the battleships? For the active battleships how do we divide the time up as between steaming and in port? Is it 320 days in port and 45 days at sea?

Captain LEUTZE. We base it on 365 days in the year.

Mr. KELLEY. That would be 40 and 320.

Captain LEUTZE. 56.25 at sea and 308.75 in port for battleships.

Mr. KELLEY. Is that the way you divide it as to the destroyers?

Captain LEUTZE. No, sir. Destroyers would be 45 days at sea and 320 days in port for the 65 active boats.

Mr. KELLEY. What is your experience about the amount of oil a battleship ought to use in port?

Admiral ROBISON. It depends very much upon the design of the ship.

KELLEY. Well, let us take some particular ship.

Admiral ROBISON. The best that we have is running slightly under 15 tons.

KELLEY. Let us not take the best.

Admiral ROBISON. The average is running about 15 tons.

KELLEY. 15 tons for 24 hours would be how much?

Admiral ROBISON. That would be approximately 105 barrels per day.

KELLEY. How much have you figured on a battleship using in port?

Admiral LEUTZE. It varies from 86 barrels to 190 barrels for port consumption.

KELLEY. Then, you have not gone far out of the way on that. The Admiral said 105.

Admiral LEUTZE. I am giving this from reports sent from individual ships.

Admiral ROBISON. You had better take his estimate instead of mine, because I am saying what could be done, in my opinion, and he is giving actual reports.

KELLEY. The destroyer proposition is the big oil problem. I want your opinion as to the proper oil consumption in running a battleship?

Admiral ROBISON. I happened to be the commander of a coal steamer, and my opinion would probably not be a satisfactory one.

KELLEY. How many barrels of oil do you figure per 100 miles of steaming, or how much would be required for steaming 24 hours?

Admiral LEUTZE. That varies from 498 to 823 barrels per day of steaming. The larger battleships have the better records. The record of the *New Mexico*, for instance, is particularly low. It is a pretty low average consumption for 12 knots. The others are higher.

Admiral COONTZ. The *New Mexico* won the pennant.

Admiral LEUTZE. The *Pennsylvania* is higher.

KELLEY. That is one of the medium-sized ships?

Admiral LEUTZE. Yes, sir.

KELLEY. Now, as to the destroyers in reserve: What do you figure for them?

Admiral LEUTZE. At 12,000 miles or 1,000 miles per month.

KELLEY. You are not going to make that mileage with the destroyers in reserve, are you?

Admiral COONTZ. Destroyers operating with 50 per cent complement must be assumed to do a normal cruising average one-half that of the active destroyers operating with the fleet. This is the normal steaming which will maintain efficiency and carry on a part of the regular target practice and the engineering runs. In addition to this normal steaming of 8,000 miles, the eight active destroyers in the Near East and 12 of the destroyers in the Asiatic Squadron are relieved by vessels from the reserve destroyers in home waters, and the necessary steaming to accomplish these reliefs will be the average steamed by the destroyers in reduced commission.

sion to more than 12,000 miles. A figure of 12,000 miles can be accepted as a minimum average mileage for the destroyers with 50 per cent complement. That is the reason we have given you that figure.

Captain LEUTZE. They actually do 8,000 miles per annum, the extra 4,000 miles is to cover the reliefs in foreign waters.

Mr. KELLEY. How many days will they be in port?

Comander HILL. It will be half of the other number.

Mr. KELLEY. You would have 22½ days at sea and 327½ days in port. When in port the figure, of course, would be the same as in the case of the others?

Captain LEUTZE. No, sir. Thirty-three days steaming; 332 days in port for the destroyers with 50 per cent complement.

Mr. KELLEY. And when they are at sea that figure would be the same as the figure for the others at sea?

Captain LEUTZE. Yes, sir; the same speed.

Commander HILL. This is the way they were figured: There 50 boats steaming 8,000 miles apiece, making 400,000 miles. There are eight boats in the Near East which have to be relieved next year, making 5,400 miles for the eight going over and for the eight coming back. There are also 12 destroyers on Asiatic station that are to be relieved during the next fiscal year. Dividing this extra steaming among all 50 destroyers in reserve increases the mileage basis to an average of more than 12,000 miles.

Mr. KELLEY. Of course, if we should conclude that you are proposing a larger steaming program than Congress wants to pay for you would have to readjust your operating plans to meet the situation, would you not?

Admiral COONTZ. I think the Secretary would have to put certain ships out of commission to carry it out.

Mr. KELLEY. If Congress concluded that 16,000 miles a year is more than they wanted to pay for, you would still keep up the rate on all that you had in operation, and rather than run, say, 15,000 miles or 12,000 miles a year, you would put ships out of commission?

Admiral COONTZ. I would not say that positively, but that would be a question that would have to be very carefully considered. As we found that we did not have enough money to do the steaming and the target practice that would keep those ships to the tiptop notch, I think the Secretary would have to consider the question of whether or not he would put some of them out of commission.

Mr. KELLEY. Of course, you do change your operating plans every little while to meet conditions?

Admiral COONTZ. Yes, sir.

Secretary DENBY. It just happens that in 1916 our operating plans for the vessels called for approximately or almost exactly the same amount of steaming.

Colonel ROOSEVELT. The steaming in maneuvers is a very small part of the fuel appropriation, and that, I think, is what probably guided the admiral in making his last statement about putting ships out of commission. Speaking offhand and without being absolutely accurate, I think about \$5,000,000 of the \$17,000,000 is for maneuvers and \$12,000,000 represents fixed charges or port charges.

Mr. KELLEY. I suppose, Admiral, it is necessary to run these mine sweepers next year 30,000 miles apiece?

COONTZ. Yes, sir.

EY. They are tugs, are they not?

COONTZ. They are tugs that tow and do every sort of an t comes their way.

EY. What is the speed of a tug?

COONTZ. This is figured at 10 or 12 knots, but when they that would be brought down.

EY. I want to see how many days these mine sweepers to go.

LEUTZE. Twelve knots is taken as the average.

EY. If they went 100 miles that would be eight hours.

LEUTZE. Eight and one-third hours, sir.

EY. And you want them to go nearly twice as far as the and they have about half the speed?

LEUTZE. When they are towing they burn a great deal

EY. Do not mix up the situation. I am talking about the you are providing that these mine sweepers shall go apiece and they only go 12 miles an hour.

ler HILL. That is just an approximation.

EY. That is what you are asking, so there is no use talking ximations.

ler ROWCLIFF. They might only go 15,000 miles, Mr.

EY. Then you would not need to have them placed on the 000 miles.

ler ROWCLIFF. Yes; because she would be dragging some- d, and that would burn up the extra fuel.

COONTZ. She is towing a part of the time.

ler ROWCLIFF. And of course when she is towing she does not; she may only be going 5 or 6 knots, but she is burn- 12 or 13 knots.

EY. So when you asked him to figure on the basis of s for the mine sweepers you did not intend that they el 30,000 miles?

ler ROWCLIFF. They would not go 30,000 miles.

EY. What do you need to drag behind them? Nothing or chain to sweep up the mines?

ler ROWCLIFF. They have drags behind them when sweep- es.

EY. What else do they drag?

ler ROWCLIFF. Barges.

EY. You have seagoing tugs here that are going to go s apiece?

COONTZ. These are shown under the heading of mine of them are mine sweepers, 7 are fleeting towing boats, n air tender at San Diego. The fleet towing is prac- ntinuous performance, the towing of targets and things racter right straight along. In that way they serve the ttleship does not tow a target. We have a smaller vessel so that these vessels are continuously occupied. We have this year, and we are only counting on 7 next, so just e added duties for that number.

Mr. KELLEY. Why do you put them down as mine sweepers? Admiral COONTZ. Because they are carried that way on your Commander HILL. They have been referred to as mine sweepers all along.

Mr. KELLEY. We did not make the name "mine sweepers."

Commander HILL. No; but that is the way we have been about them during the last few weeks of the hearing.

Mr. KELLEY. But they are not mine sweepers.

Admiral COONTZ. They are all mine sweepers. Two of them being used as mine sweepers and seven are being used as fleet.

Mr. KELLEY. And the reason they have to go 30,000 miles is they go back and forth?

Admiral COONTZ. They tow ships, barges, lighters, target all sorts of things for the battleships, as well as any job that is put on them. As I say, this year we are using 19, and we have a number to 7, and you can imagine the added work that we have.

Mr. KELLEY. Have you been running these tugs 30,000 miles a year in the past?

Admiral COONTZ. I think we undoubtedly have, or we may have made that figure.

Commander HILL. Not 30,000 miles exactly, but it is that amount of fuel that will be expended; we know it will take that amount of fuel; although they may not go that mileage they will use that fuel. That is just the fuel estimate and that mileage is given in order to help Supplies and Accounts as to some basis on which to figure their fuel.

Mr. KELLEY. Is there not any basis which can be formed from experience?

Commander HILL. Yes, sir; and if you would like to have it, you could insert it in the record. The amount of fuel those types of ships burn per vessel was all taken into consideration when the estimate was made up, and that could be inserted in the record if you desire.

Mr. KELLEY. We do not want to bother you too much.

All right. Transports, 75,000 miles, three times around the world.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Could they go three times around the world without being kept going all the time?

Admiral COONTZ. Oh, yes.

Mr. KELLEY. How long does it take to go around? What is the speed of the *Hancock*?

Admiral COONTZ. Let us take an average. I think it is figured at 12 knots an hour, or 12½, or 300 miles a day; and it is, say, 21,600 miles around the world, or 70 days, and three times 70 is 210.

Mr. KELLEY. It used to be 25,000 miles around the world when I was a boy.

Admiral COONTZ. That was land miles, Mr. Kelley, but it is 21,600 sea miles around the world. That would give 130 at port and 210 at sea for the transports, and that is a pretty good average.

Mr. KELLEY. That is to go around once?

Admiral COONTZ. Yes, sir.

ELLEY. But if you went around three times——

al COONTZ (interposing). I said 3 times 70 would be 210, would be 3 times around, and there would be 150 days in port.

al ROOSEVELT. May I draw attention to another fact? I remember Byrnes was talking particularly about assembling the men to be discharged and bringing them back. Now, how do you get them back? By transports?

in LEUTZE. The *Chaumont* is actually making a trip at that time.

ELLEY. Three times around the world?

in LEUTZE. At that rate; yes, sir. We were looking her up particularly the other day, and we found she would be able to make three trips comfortably in a year.

ELLEY. Do you have to carry three shifts of men on these transports, and is that the reason why you must have so many men?

al COONTZ. No.

ELLEY. If these ships sail for the time you suggest, you have to have three crews.

al COONTZ. I do not believe I catch what you are talking about.

ELLEY. The boys could not work 24 hours a day, you know? Under ROWCLIFF. They all have watches in the fireroom; stand from three to four watches in the fireroom, and on and off, so far as that goes.

ELLEY. In commerce, you know, you must have three full shifts of ocean traffic, so that the boys work eight hours, when an outfit comes on and works eight hours. You do not work any more than that, do you?

Under ROWCLIFF. Ours do not belong to the union.

ELLEY. I am asking whether you work your boys longer than 8 hours a day?

al COONTZ. Yes.

ELLEY. Every day?

al COONTZ. But not normally if we can help it.

BYRNES. You do not mean eight consecutive hours?

al COONTZ. No; four hours on and four hours off. I have myself many a day.

ELLEY. Do you not have the sailing of these ships pretty much 5,000 miles?

al COONTZ. No, sir; not for one minute. We only have 10 ships left, and we can show you what they are actually doing. This gives them 150 days in port. What would an ordinary ship do with 210 days at sea and 150 days in port? That is nothing in sport, and they all have long distances to travel; for instance from New York to San Diego, to Honolulu, and so on.

Under HILL. This is figured on exactly what they are doing.

al COONTZ. This very minute.

ELLEY. What do you mean by saying on exactly what they are doing to-day? What is it?

Under HILL. We have two transports running between here and the Philippines and back again.

Mr. KELLEY. In what time? What do you
 Commander HILL. We count on them in
 between the Atlantic—Philadelphia or Norfolk—and
 again every four months, three round trips
 Manila during the year. That is the basis.

Mr. KELLEY. How far is it from Norfolk to Manila
 Admiral COONTZ. About 12,000 miles, I guess. From
 York to Bremerton is 6,039 miles, and the run from
 to Cavite and return is 13,716 miles, half way around
 over.

Mr. KELLEY. So they go around every three months?

Admiral COONTZ. Every four months, and I
 at all high.

Commander HILL. They actually do it in three months
 they have two weeks at each end.

Mr. KELLEY. Which one is doing that?

Commander HILL. Both the *Chaumont* and *Argonne*
 that.

Mr. KELLEY. What is the other one doing?

Commander HILL. The other one is right now in the
 service.

Admiral COONTZ. The *Henderson* is making round trips
 with the marines.

Mr. KELLEY. Making trips to where?

Admiral COONTZ. Santo Domingo and ports of call.

Mr. KELLEY. How many miles has she
 months?

Commander HILL. She is working on projects of
 kind. Captain Leutze has the exact figures
 runs, but making more of them. She is now in
 in the West Indies. We can insert in the record
 for the last six months, and I think you will
 age of this, as we went into that very carefully.

Commander COBURN. The *Henderson* is making
 age as the *Argonne* and *Chaumont*.

Mr. KELLEY. What is the speed of the *Henderson*?

Commander HILL. She averages about 12 knots.

Admiral COONTZ. I think her economical consumption
 we have ordered them to make an economical consumption

Mr. KELLEY. Will your ammunition ships
 a year?

Admiral COONTZ. Yes, sir; and they are
 carrying ammunition to the Pacific and to the Atlantic.

Commander COBURN. Fifty thousand
 ships.

Admiral COONTZ. The steaming of the fleet
 months of the year is 26,182 miles, estimated.

Commander HILL. The situation as to the
 a great amount of ammunition and ordnance
 been stored on this coast for a long time and
 to get commercial vessels to transport that
 the risk, and now that we have these ships we

een this coast and the west coast in hauling supplies to the coast, Pearl Harbor, and those places which need supplies, es, etc.

r. KELLEY. It is to distribute your ammunition where you need

ommander HILL. Yes, sir: we have just gotten them.

r. KELLEY. Just how did you use oilers? Do they bring the oil ie ships or from the refineries to your depots?

dmiral COONTZ. They do about four separate things. Will you them exactly, Commander Cobey?

ommander COBEY. Of the oilers on the Atlantic coast two are ed in carrying oil to the fleet at Guantanamo, and there are two, a large one and one a small one, engaged in carrying oil from : Arthur to places where it is consumed on this coast or from Fall r. However, we have just finished that contract so that there be no more ships out of Fall River. That makes four on this t. One is engaged in carrying oil to the vessels in European rs; there are three with the Pacific Fleet engaged in carrying rom the refineries in the vicinity of San Francisco and Los An- s, where the pipe-line terminals are, to San Diego and to the , wherever it is along the coast, to Puget Sound and to Pearl bor.

r. KELLEY. How much oil will one of them hold?

ommander COBEY. They vary from 55,000 barrels to 70,000 bar- the average is about 62,000 barrels.

r. KELLEY. What part of the oil do you suppose is taken on board hips from the oilers?

ommander COBEY. Practically all of it.

r. KELLEY. It is all carried out to the fleet?

ommander COBEY. Yes, sir.

r. KELLEY. Sometimes a short distance and sometimes wherever leet is?

ommander COBEY. I thought you meant whether the vessels go rside a dock, but none of the larger ships go alongside a dock.

r. KELLEY. You pump the oil from the oilers into the large ships though the oil is taken on board right in the same harbor?

ommander COBEY. No; they use barges there; they do not use s.

r. KELLEY. You do not use oilers except where the ships are distance from the storehouse?

ommander COBEY. When the ships are some distance away or e there is a large group of vessels, but when there are only one o and they are in one place it does not pay to use an oiler.

ptain LETTIE. When the fleet is in New York we have to use all barges we can get from the oil companies in addition to the s, because there are not enough barges.

r. KELLEY. You would probably say that the bulk of the work e oilers would be in carrying the oil from the refineries to your houses, would you not?

ommander COBEY. In normal times there is just about as much arried to the vessels of the fleet, wherever they are—that is, ighout the year—as there is to storages. At this time of the on the Atlantic coast all of the oil that is used is brought in

oilers, but when the fleet is along the coast there is much less oil in oilers.

MR. KELLEY. Would you say it took one oiler to take care of oil for every one battleship and four or five destroyers?

Commander HILL. I do not believe we figured it just that way; it is just a matter of tonnage capacity, etc. It depends on how they get their oil.

MR. KELLEY. It depends on where the ships are and how they have to go for oil?

Commander HILL. Yes; it involves a lot of variables, and I could give them to you for any set of ifs.

MR. KELLEY. If the battleships on the Pacific are in port, at what ports would they be in?

Admiral COONTZ. They would be in Puget Sound, San Francisco, San Pedro, and San Diego; and if we had the necessary fleet would go to Hawaii once in awhile, and if we had a lot more they would sometimes have joint maneuvers with the Atlantic fleet.

OIL RESERVES.

MR. KELLEY. Where is the oil on the Pacific coast stored?

Admiral COONTZ. We get most of it at that place north of San Pedro. What is the name of that place?

Commander COBEY. Port San Luis; and we do not get any at San Diego now.

Admiral COONTZ. Do we get any at San Pedro?

Commander COBEY. Yes, sir.

Admiral COONTZ. Then, we get it at San Pedro and San Luis.

Commander COBEY. And San Francisco.

MR. KELLEY. How many of the oilers will you have in the Pacific?

Admiral COONTZ. I will have to look at my list and see. I have it in the record, but I do not remember.

Captain LEUTZE. They said there were two to operate in the Pacific.

MR. KELLEY. You do not need but two in the Pacific?

Admiral COONTZ. Three with Pacific Fleet, one with Asiatic Fleet, and two in naval transportation service in the Pacific.

MR. KELLEY. If you have 10 oil-burning battleships in the Pacific?

Admiral COONTZ (interposing). We will have 12, sir.

MR. KELLEY. Twelve oil-burning battleships in the Pacific?

Admiral COONTZ. Before we get through.

MR. KELLEY. And 38 destroyers?

Admiral COONTZ. 19, 19, 19, and 8.

MR. KELLEY. And 38 would be in the Pacific?

Admiral COONTZ. No; there would be 19 in China, 19 in the Pacific, 19 in the Atlantic, and 8 in the European detachment. Of course we must have oilers in connection with them, and of the 38 I am going to have in 50 per cent commission a part of them will be at Charleston.

MR. KELLEY. Have we any storage at Charleston?

Admiral COONTZ. The storage at Charleston is extremely small; it is not.

under COBEY. Yes, sir; the storage at Charleston is 36,000

ALLEY. That would not last very long?

under COBEY. No, sir.

PRICE OF OIL.

ALLEY. At what price do you figure this oil?

under COBEY. \$2.163 per barrel.

ALLEY. What are your contracts for next year? Take them specific first.

under COBEY. \$1.50 at San Francisco and San Pedro, \$1.65 at San Diego, \$1.88 at Seattle, and \$2.15 at Pearl Harbor.

ALLEY. How could that average what you gave there?

under COBEY. That is for the west coast only, sir.

ALLEY. What will that average be?

under COBEY. That average is \$1.816 with the average barge \$0.187 included.

ALLEY. The bulk of your oil will be delivered at what point?

under COBEY. At San Pedro.

ALLEY. How many barrels there?

under COBEY. One million four hundred and eight-five thousand delivered.

ALLEY. And you get it there at \$1.50 a barrel?

under COBEY. Yes, sir. One dollar and fifty cents per barrel dock, or \$1.687 in barges.

ALLEY. How many barrels at San Diego?

under COBEY. Four hundred and seventy-five thousand two barrels to be delivered.

ALLEY. How many barrels at Bremerton?

under COBEY. Two hundred and sixty-seven thousand three to be delivered.

ALLEY. How many at Hawaii?

under COBEY. Three hundred and fifty-six thousand six hundred forty-six to be delivered.

ALLEY. Do you send the oil by freight to Hawaii?

under COBEY. Most of it in the past has been delivered by oil tankers.

ALLEY. You would not expect to do that this year, would you?

under COBEY. Yes, sir.

under COBEY. We will not have sufficient tankers, with only one in commission, to send oil to Hawaii.

ALLEY. How many trips would you have to make to Hawaii to get the oil you would need there for a year?

under COBEY. There would be about six trips of a commercial tanker.

ALLEY. Would not that be cheaper than paying freight?

under COBEY. You mean if a naval tanker were used?

ALLEY. Yes.

under COBEY. Seven tankers will not allow us enough to get it here.

ALLEY. Would eight be all right?

Commander COBEY. I should think that done, yes, sir; one tanker can more than take care of it.

Mr. KELLEY. Why do you have to have so much?

Commander COBEY. Well, there is always a number of ships there for repairs.

Mr. KELLEY. That is based on the plans of the chief of the yard, Admiral COONTZ. The battleships have to go there to dock.

Mr. KELLEY. You have a fine dock there and a fine yard for repairs?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And pending the time when we get the channel, and everything, into shape you can operate comfortably there and do all of your docking?

Admiral COONTZ. Yes, sir; we have a pier along the shore now on the west coast, but not comfortable.

Colonel ROOSEVELT. Not very comfortable. According to your figures you have a very small margin of safety.

Admiral COONTZ. That is very true, but we are satisfied with the present number on the west coast if not on the east.

ESTIMATED CONSUMPTION OF OIL.

Mr. KELLEY. How many barrels of oil are you consuming on the Atlantic coast?

Commander COBEY. Based on the present figures, 2,405,710 barrels on this coast.

Mr. KELLEY. What do you want that for? What are you going to do with it?

Commander COBEY. That is on the basis of the consumption on both coasts.

Mr. KELLEY. I thought you were figuring the consumption of the admiral gave you.

Commander COBEY. Well, we are figuring the consumption of the ships as at present. The number, however, is not the list.

Mr. KELLEY. Suppose you figure the way that change your figures?

Commander COBEY. No, sir.

Mr. KELLEY. It would only give you eight in the Atlantic.

Commander COBEY. No; 19 on the Atlantic coast, and 8 in the European station, I think was the statement.

Admiral COONTZ. You are figuring the consumption of the ships and I gave you 19 in the Asiatic, 19 in the Atlantic, and 8 in the European detachment.

Mr. KELLEY. You are going to have 19 in the Atlantic coast, and 8 in European waters?

Admiral COONTZ. Yes, sir.

Secretary DENBY. And 19 in Asiatic waters?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is the cost of getting the oil to the Roads, if that is your chief storehouse?

Commander COBEY. At Hampton Roads it is the price we have estimated. On the west coast it is

oil is going to cost year in and year out, as nearly as any set commodity can be gauged.

r. KELLEY. Is that what this contract stood you up at Fall River somewhere near Boston?

Commander COBEY. No; that stood us \$3.70 delivered at Norfolk.

r. KELLEY. And that contract is now out of the way?

Commander COBEY. Yes, sir; we have two other contracts still hanging which have to be set aside until we finish getting the oil under that contract, and we have taken the lower of those two.

r. KELLEY. Where do you get this oil on the Atlantic coast?

Commander COBEY. The points of delivery under the contract are Port Arthur, San Diego, at Philadelphia, and New York.

r. KELLEY. You buy it at Port Arthur and store it there?

Commander COBEY. We buy it there, but there is no storage at Port Arthur.

r. KELLEY. That is Texas oil?

Commander COBEY. No, sir; that is Mexican oil.

r. KELLEY. It comes from Tampico?

Commander COBEY. Just now they are drawing it from the lower States.

r. KELLEY. You say there is no storage at Port Arthur?

Commander COBEY. There is no naval storage there.

r. KELLEY. How do you happen to have it delivered there?

Commander COBEY. Because that is where the large refineries are. That oil is mixed—that is, 60 per cent of Mexican oil is mixed with 40 per cent of Mid Continent oil and Texas oil, and in that the fuel oil for the Navy is gotten.

r. KELLEY. What did you say the price was?

Commander COBEY. \$2.25 at Port Arthur, \$2.60 at Norfolk, \$2.65 at Philadelphia, and \$2.65 at New York.

r. KELLEY. Do you bring it from Port Arthur in your tankers?

Commander COBEY. No; we only bring a part of it; whenever the oil comes in small groups along the coast or single at navy yards it is delivered in barges.

r. KELLEY. But the oil which is delivered to you at Port Arthur from the refineries you put into your own tankers and bring it up?

Commander COBEY. Yes, sir.

r. KELLEY. So that cost is taken care of elsewhere and not out of the appropriation?

Commander COBEY. It is taken care of otherwise; yes.

r. KELLEY. So that the Port Arthur price would really be the Boston Roads price?

Commander COBEY. The total oil used on this coast—

r. KELLEY (interposing). Please answer the question directly.

Commander COBEY. No, sir.

r. KELLEY. It would not be. Why would it not be if you bring it yourself?

Commander COBEY. The cost at Norfolk of 163,000 barrels, it is stated, can be bought under contract—

r. KELLEY (interposing). I am talking about your Port Arthur

Commander COBEY. It would cost the same.

r. KELLEY. As at Port Arthur, because you deliver it yourself?

Commander COBEY. Not all the oil is delivered by our own tankers. Our own tankers deliver only a part of it. Where there is a tanker at a given port and there is no tanker present, we draw oil from shore, unless there is sufficient oil in storage, which is not generally the case.

Mr. KELLEY. What part of the Port Arthur oil is delivered by the contractor to Norfolk?

Commander COBEY. At the estimated consumption of 2,405,700 barrels for the Atlantic and European stations together, 16½ barrels are to be delivered by the contractor at Norfolk, and half of the whole oil—1,485,000 barrels—are estimated to be delivered to naval tankers at Port Arthur. We assume that there will be tankers enough. There is a tremendous difference in the price of oil. We save 35 cents a barrel whenever we use our own tankers.

Mr. KELLEY. This is going to reduce your expense quite a bit. What difference in the price of oil?

Commander COBEY. Yes, sir.

Mr. KELLEY. This year there will be a great saving to you. What is the average price of oil, taking the oil as a whole on both coasts?

Commander COBEY. \$2.163.

Mr. KELLEY. That is what you are asking for next year?

Commander COBEY. Yes, sir; that is the average price we are asking for next year.

Mr. KELLEY. Do you know what it has been for the past few months?

Commander COBEY. I have that here.

Mr. KELLEY. It is considerably more, because you had this contract at Fall River at \$3.70 per barrel.

Commander COBEY. \$2.75 was the average for the last year.

RESERVE SUPPLY OF OIL.

Mr. KELLEY. How much oil have you in storage on the Pacific coast?

Commander COBEY. In the Pacific, starting with San Diego, at the 28th of February, 91,000 barrels in storage. There is no storage in the vicinity of San Francisco. At Puget Sound, which is the point of storage—the only other one on the coast—203,000 barrels.

Mr. KELLEY. You do not have any storage midway between San Francisco and Puget Sound?

Commander COBEY. There has been an appropriation for storage in the vicinity of San Francisco, but it has not been built.

Mr. KELLEY. I thought you said a while ago that your oil was delivered at some point midway between San Francisco and Puget Sound?

Commander COBEY. Direct to the ships.

Mr. KELLEY. You do not need any storage for oil on the Pacific coast?

Commander COBEY. Yes, sir; it has always been considered unnecessary.

Mr. KELLEY. In case of war you would simply take the petroleum tanks, storage, and everything else out there?

Commander COBEY. Well, the plans of the department call for considerably larger storage than we have out there.

Mr. KELLEY. Of course, there are large holdings of oil in the vicinity of San Francisco. I do not know how much, but mi-

llions of barrels, and in case of the war the first thing Congress would do would be to authorize the Navy Department to take as we took everything during the war.

Mr. COONTZ. Usually it takes 60 days to get ready for war, while waiting for Congress to act—

Mr. KELLEY (interposing). You would not have to wait long for Congress to make a law.

Mr. COONTZ. Our war plans call for certain storage on the

Mr. KELLEY. Admiral, would it keep the Navy going a year?

Mr. ROBISON. No, sir.

Mr. KELLEY. How much is there?

Mr. ROBISON. I do not think there is more than 2,000,000 barrels of storage altogether on the Pacific coast. I can obtain the figures, I think.

Mr. KELLEY. How much oil have we in storage as a result of purchases on the reserves?

Mr. COONTZ. We have not any yet.

Mr. ROBISON. None.

Mr. KELLEY. When will we have?

Mr. ROBISON. Up to date all of that has been turned into the Treasury.

Mr. KELLEY. Is not the royalty paid in oil?

Mr. DENBY. They pay the royalty in oil. The oil royalty goes to reserve, and it is there now. I can not tell you how much it is, but I do not think the Interior Department can tell you.

Mr. ROBISON. There is none yet; there will be some.

Mr. DENBY. I do not know how much money it is. The Treasury of the Interior may know.

Mr. KELLEY. The leases have been made to oil people in the vicinity; do they pay us in oil?

Mr. DENBY. Yes, sir.

Mr. KELLEY. And they store it for us?

Mr. DENBY. The proposition will probably be that they will lease oil at certain stations for the oil which they take out. It is new. We have only begun to tap those wells. There is no time yet to present to estimate.

Mr. KELLEY. Have you not any data at all?

Mr. DENBY. We have not been controlling it. We knew that the oil was being drained off, and we turned it over to the Interior Department.

OIL WELLS ON NAVAL RESERVES.

Mr. FRENCH. Let me explain this situation. I am a member of the Interior Department subcommittee. When we had our hearings, we had something of an opportunity to go into this question, because the fact that the Bureau of Mines has been charged with the responsibility of cooperating with the Navy Department in handling this problem in connection with the naval petroleum reserves. The Interior subcommittee felt that since the benefits of this service accrue to the Navy, the Navy should be charged with the appropriation for maintaining it, although the Interior Department would be expected to handle the work for the Navy as heretofore,

the Navy paying over to the Bureau of Mines of the Interior the money properly charged to the Navy for services rendered. As the members know, there have been set apart areas in the oil fields for the benefit of the Navy. These fields are in California, Wyoming, and, by way of leases, in Oklahoma. I believe it is the policy of the Navy to hold the oil in storage on ground within these naval oil reserves wherever possible. On the other hand, there are several fields where private interests own lands that are checkerboarded throughout the Navy holding lands. In California, for instance, the Southern Pacific Railroad Co. and the Standard Oil Co. own large acreages. These concerns and in some places are drilling wells on their own properties on lands owned by the Navy, and they are pumping out the oil. Naturally they are depleting the pool underneath the naval lands as well as their own, and the Navy will lose unless it shall sink these wells and take out its share of oil from the naval reserves.

It is the policy of the Navy to do this very thing, and the Bureau of Mines is charged with the technical responsibility of handling the matter. The wells on naval lands are drilled by lessees on a percentage basis, the Navy receiving from 12 per cent to 35 per cent of the oil produced, depending upon the grade of the oil and the distance from each well. Director Bain, of the Bureau of Mines, has told me that there is keen competition, and in his judgment the Department is thus receiving the benefit of competitive bids for the work, too. In the Bureau of Mines has to do with inspecting oil wells to see that injury shall not be done to the fields. The Navy has to do with gauging the oil produced. Part of it has to do with handling the leases and seeing to it that the Navy Department receives adequate lease contracts. Again, the crude oil is not set aside for naval use; consequently this oil must be disposed of for other uses, oil, and the general policy followed is for the exchange to be made of crude oil belonging to the Navy for refined oil suitable for the Navy. The Bureau of Mines handles this work. Again, in some places it is more advantageous to sell the oil than it is to store it; in other places it is more advantageous to store the oil for future use. Arrangements for storage facilities, determination of proper charges, etc., these matters are handled by the Bureau of Mines for the Navy.

The chairman has suggested the advisability of having some statement made in your hearings from the hearings before the Interior Department committee showing the compensation paid to employees engaged in this type of work and I am inserting herewith the statement taken from the Book of Estimates.

FROM ESTIMATES FOR THE BUREAU OF MINES.

Estimates for oil investigations and inspection work (on the basis of work asked by the Interior Department for general work):

1. Supervisor of oil and gas operations per annum _____
3. Deputy supervisor of oil and gas operations _____
1. Associate natural gas engineer _____
1. Mining engineer¹ _____
1. Mining engineer¹ _____
3. Petroleum engineer _____
1. Petroleum engineer _____
1. Assistant petroleum engineer _____
1. Chief gauger _____

¹ Estimated.

driller	\$3, 600
ical examiner	3, 600
ugers	2, 100
earing draftsmen ¹	2, 100
earing draftsman	1, 800
oil clerk	1, 680
oil clerk ¹	1, 500
oil clerk, per month \$125 ¹	1, 500
oil clerk, per annum	1, 260
	1, 500
and per diem in lieu of subsistence of \$2.50, \$3, \$3.50, and \$4, ant to section 13 of the sundry civil act, approved Aug. 1, 1914 (at. 680)	20, 290
ies and telegrams	900
at, and light	2, 400
	13, 000
	6, 280
nt	5, 400
	5, 400

ctor Bain has advised me further that the salaries paid to the
ees necessary in handling this work within the Bureau of
are as reasonable as may be, when taken into consideration
ilaries paid similar employees in private work in the same

Il ask the Navy Department for a statement showing the gen-
ans of the department touching the naval oil lands and shall
t at this point.

OIL ROYALTY.

KELLEY. They are asking for \$100,000 to pay men who just
he oil and see that it is properly delivered to you, and all
Do you know anything about that?

iral ROBISON. Yes. For the care, custody, and maintenance
naval petroleum reserves I will need \$100,000. Up to about
of November all the royalties from oil received for the ac-
of the Navy were transformed into cash and under the law
cash was turned into the Treasury under the heading of mis-
ous receipts. The amount turned in was somewhat in ex-
\$3,000,000. It is in the future that the reserve may help
vy. We never got one cent's worth of benefit from it, except
extent—

KELLEY (interposing). That was cash oil royalty?

iral ROBISON. That was all oil royalty. In the first instance,
l to dispose of it and we had no form of disposing of it ex-
sale.

KELLEY. Could not you sell it yourself?

iral ROBISON. We could have, perhaps, but what would have
e difference?

KELLEY. Could you not have bought it out there?

iral ROBISON. Yes, sir; but it would not have made any dif-
it would have gone into the Treasury just the same. There
no use of complicating the books. Under the present agree-
re Secretary of the Interior has undertaken to handle the
roposition.

Mr. KELLEY. You think that we can not figure out at all?

Admiral ROBISON. I know that you can not.

PRICE OF GASOLINE.

Mr. KELLEY. Now, gasoline.

Captain LEUTZE. We estimate that we will need 32,897 of gasoline, at 24 cents a gallon, \$789,480.

Mr. KELLEY. 24 cents a gallon?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. The last gasoline I bought for my car was 24 cents, retail. How can that be right?

Mr. BYRNES. You can buy gasoline for 24 cents at Waco now.

Mr. KELLEY. At retail?

Mr. BYRNES. Yes, sir.

Mr. KELLEY. I do not believe there is a place in the United States where they pay that much.

Admiral ROBISON. Some of the gasoline is not used in the States.

Commander COREY. Most of this gasoline is in drums, which causes the price to be more than the bulk price. The bulk price is 24 cents, but most of the gasoline has to be handled in drums, which costs a great deal more than tank-wagon deliveries.

Mr. KELLEY. How much do the drums hold?

Commander COREY. Fifty-five gallons. The small boats have them. Our price on gasoline was exactly the same as the market price—in fact, when our contract was made in December, it was below the market price. We got about 1 cent off on a very large quantity we bought.

Mr. KELLEY. Can not you work out some other way of getting this gasoline without paying that enormous price? What is the wholesale price of gasoline now in bulk?

Commander COREY. The wholesale price at Port Arthur is 16 cents. That is exactly what our contract is. When we put a tanker in at Port Arthur that carrier gasoline, as they call it, *à la base*, which is on her way there now. We figured it out to have \$8,200 on one trip alone to Guantanamo, because we have to put the gasoline direct into tanks, and there it will be put in and sent out to the ships.

Mr. KELLEY. Have you the drums to take care of that?

Commander COREY. Yes, sir.

Mr. KELLEY. Then you will not need but 16 cents per gallon?

Commander COREY. Oh, no; that is for the situation at Port Arthur, where they have bulk storage.

Mr. KELLEY. You have drums enough for the whole fleet?

Commander COREY. No, sir. The ordinary purchases are made by the fleet, the *Bureau* is carrying drums to Port Arthur and to the other ports, which will be at a price of 18.5 cents per gallon, the price shown in that vicinity. Up here is 24 cents, and 24.5 cents. The quantity of gasoline used in the fleet is about 10 per cent that used in drums.

. KELLEY. I do not quite get that straight. You have on hand as much as enough in the Navy to supply the Navy's needs?

Commander COBEY. No, sir; it is only those vessels with the fleet.

. BYRNES. Can you reuse the drums?

Commander COBEY. Yes, sir.

. BYRNES. Are you not accumulating a supply of drums?

Commander COBEY. No, sir; the supply is not increasing.

. BYRNES. If you keep on using them, it seems to me you would use the supply of drums?

Commander COBEY. A great deal of gasoline is used at shore stations where there are no facilities for handling it except in drums; it has to be delivered in drums.

. KELLEY. Do you swap drums with the contractor; that is, he gives you a full drum you give him an empty drum?

Commander COBEY. At most of the points we have been getting a cumulation of drums.

. KELLEY. You say that you have drums enough for the fleet?

Commander COBEY. We have drums enough for the fleet when it is operating as a fleet, but the gasoline is used in many places where there are no drums.

. KELLEY. You can use any quantity and you get that at 16 cents a gallon?

Commander COBEY. On the Asiatic Station, at Pearl Harbor, and at European stations it is all obtained by drum deliveries, practically all, and that is very expensive.

. KELLEY. If you owned the drums it would be just a question of delivering them on your cargo ships—you probably would not use gasoline on anything but a special ship?

Commander COBEY. We do not; no. We do not send any Government drums to Europe or the Asiatic Station, or to Pearl Harbor.

Secretary DENBY. Why do you add the price of the drum to the cost of the gasoline?

Commander COBEY. We have not sufficient Government drums, Secretary. Our Government drums are only about one-fifth of the needs, and the rest of the gasoline has to be bought in contractors' drums.

. KELLEY. Gasoline in a contractor's drum costs 8 cents more a gallon than it would if bought in bulk at some other place?

Commander COBEY. Yes, sir.

. KELLEY. Do you own the drums?

Commander COBEY. The drums do not become the property of the Government.

Secretary DENBY. The inherent fact is that the cost of gasoline in drums is 24 cents a gallon, according to your figure?

Commander COBEY. About 27 cents in the drums.

Secretary DENBY. And if you had your own containers down at Pearl Harbor it would only cost 16 cents, approximately?

Commander COBEY. Yes, sir.

. BYRNES. Do they make you pay for the use of the drums?

Commander COBEY. Yes, sir; for the labor required in the contractor's filling the drums.

. BYRNES. Filling the drum with gasoline does not involve very much labor.

Secretary DENBY. It keeps the men busy all the time.

Commander COBEY. All of the gasoline in the city is bought bulk.

Mr. BYRNES. The man down here on Pennsylvania Avenue has to pay rent and a licensee fee and labor sells it to me for cents and your man sells it for 24 cents because of the labor of putting it in the drums.

Commander COBEY. The damage to the drum is figured at from 3 to 5 cents.

Admiral COONTZ. As I understand it, it is all straight. It has to be delivered from where they get it to each coast, a long distance. Commander COBEY. And that includes freight.

Admiral COONTZ. There is a very great element.

Mr. KELLEY. If you had at Hampton Roads some gasoline storage how much would it cost you to fill the drums—55 gallons?

Commander COBEY. I have not that figure.

Mr. KELLEY. You are paying \$2.40. It does not seem to me that it would cost \$2.40 to fill a 55-gallon drum.

Commander COBEY. All the oil companies have fixed charges they are about the same.

Mr. KELLEY. If you go down to Port Arthur and get it and put it up in drums at wholesale you can get quantities at 16 cents. When they put it in the drums it costs 27 cents.

Commander COBEY. We have only one tanker at present on the coast that will carry gasoline in bulk. The rest has to be carried in drums.

Mr. KELLEY. They have to be specially constructed for gasoline.

Commander COBEY. Yes, sir. It is very hard to make a compartment on an oiler tight enough for gasoline.

Mr. KELLEY. Offhand it seems that there is quite a leakage.

Mr. REED. We are discussing Port Arthur and trying to apply to different points. The bulk price at Port Arthur is 16 cents. When we furnish the drums and they put it in the price is 18.5 cents.

Mr. KELLEY. But they charge you 27 cents to fill the drum?

Mr. REED. Not at that particular point. At Norfolk the bulk delivery price is 19.5 cents, whereas for delivery in the drums it is 27.5 cents.

Mr. KELLEY. That is quite a big element. Your position is that in any event they have to deliver it to Hampton Roads because you have not the necessary facilities there?

Mr. REED. In bulk it is 19.5 cents and in drums they charge 27 cents.

Mr. KELLEY. Your gasoline at Hampton Roads costs you how many cents?

Mr. REED. In bulk.

Mr. KELLEY. How in the world can these people in Washington sell it at 23 cents at retail?

Mr. REED. They get it for 1 or 2 cents less than that because delivered in tank wagons.

Mr. KELLEY. If it were delivered in bulk at Hampton Roads say that it would cost 19.5 cents?

Mr. REED. Yes, sir; we have no storage there. In New York in Baltimore it is 19.5 cents in bulk and in Boston it is 20.5 cents in bulk.

BYRNES. What is the economical thing to do, to put storage ? Something should be done, do you not think, so that you d be able to buy it cheaper.

miral ROBISON. The proper thing to do is to put in machinery ill not burn gasoline but will enable us to use fuel oil instead. one will cost us about, at most, 7 cents a gallon, and the other us at present 24 cents. One we can carry safely; the other we ot.

KELLEY. This is for the launches and things like that on board ips?

miral ROBISON. Yes, sir; but the amount of gasoline could be ed by changing the character of the machinery.

KELLEY. That would cost a lot of money.

miral ROBISON. Yes, sir; it would take a lot of money.

mander COBEY. On the west coast gasoline runs as high as nts.

KELLEY. How many subchasers did you include in this gaso- stimate, any?

tain LEUTZE. No, sir, no submarine chasers.

etary DENBY. Is not the cost given by Supplies and Accounts er case of uniting various costs and averaging up the cost of 24 for gasoline? That means the cost of gasoline in Europe and and on the east and west coasts?

tain LEUTZE. Yes, sir.

ORANDUM REFERRING TO GASOLINE, YEAR 1923. BUREAU OF SUPPLIES AND ACCOUNTS.

estimate of gasoline requirements for fiscal year 1923 is based on the boats attached to the various naval vessels, such motor boats to operate average of 51 hours per month each, as follows:

Class of vessel.	Number of boats.	Operating 51 hours per month.	Total for 12 months.	Value.
Battleships.....	108	86,904	1,042,848	\$250,283.32
Cruisers, second line.....	25	11,028	139,535	33,488.64
Light cruisers, first line.....	6	5,202	62,424	14,981.76
Light cruisers, second line.....	13	3,570	42,840	10,281.60
Aircraft carrier.....	8	4,386	52,632	12,631.68
Line layer, second line.....	6	3,366	40,392	9,694.08
Destroyers, active.....	130	19,890	238,680	57,283.20
Destroyers, reserve.....	100	15,300	183,600	44,064.00
Light mine layers.....	8	1,224	14,688	3,525.12
Submarines.....	None.	None.	None.	None.
Patrol, gunboats.....	21	4,284	51,408	12,337.92
Patrol.....	15	6,834	82,008	19,681.92
Destroyer tenders.....	47	24,939	299,268	71,824.32
Submarine tenders.....	52	32,538	390,456	95,709.44
Aircraft tender.....	10	5,100	61,200	14,688.00
Repair ship.....	6	2,754	33,048	7,931.52
Tore ship.....	6	3,060	36,720	8,812.80
Oilers.....	4	1,122	13,464	3,231.33
Oilers.....	17	4,998	59,976	14,894.24
Ammunition ships.....	8	4,692	56,304	13,612.96
Argo vessels.....	8	1,530	18,360	4,406.40
Transports.....	20	13,107	157,284	37,748.16
Hospital ship.....	5	3,978	47,736	11,456.04
Tugs.....	7	1,326	15,912	3,818.88
Fire sweepers.....	10	2,040	24,480	5,875.20
Auxiliaries, miscellaneous.....	15	5,661	67,932	16,303.68
	655	269,433	3,233,196	775,967.04

No.	Class of vessel.	Number of boats.	Operating 51 hours per month.	Total for 12 months.	Value
Shore activities craft:					
1	Privateer.....		1,530	18,360	\$1
1	Clarinda.....		1,632	19,584	
1	Zumbrota.....		510	6,120	
2	Ambulance boats.....		1,020	12,240	
5			4,692	56,304	1
303	Grand total.....	660	274,125	3,290,500	74

Memorandum for the case.—Estimated expenditure of gasoline for motor (gallons per hour).

50-foot motor sailing launches, 40-foot motor sailing launches, Navy KK 20-horsepower engine.....
 35-foot motor boats, Van Blerk 6-cylinder or Sterling 6-cylinder 100-horsepower.....
 26-foot motor lifeboats, Kermath 4-cylinder 20 horsepower.....
 36-foot motor sailing launches, 36-foot motor ambulance boats, Navy HH engine.....
 33-foot, 30-foot, 24-foot motor sailing launches, Navy GG engines.....
 26-foot motor boat, Navy GG engine.....
 21-foot motor dory, Navy EE engine.....
 Motor campan, various, Commercial 6 to 10 horsepower.....
 50-foot motor boat, 100-horsepower engine.....
 36-foot special mine-laying launches, Navy KK engines.....
 36-foot special survey boats, Buffalo Commercial engine 30 horsepower.....
 30-foot twin-screw motor boats, 2 Commercial engines 10 horsepower each.....
 24-foot motor surfboats.....

NOTE 1.—Some of the vessels have 40-foot motor barges for flag duty. They have eight-cylinder engines and will use about 40 gallons per hour.

NOTE 2.—Above information furnished by the Bureau of Engineering May 17, 1922.

Mr. KELLEY. How much are these drums worth?

Commander COBEY. About \$7 apiece.

Mr. KELLEY. I should think that it would be a good thing to have enough drums.

Commander COBEY. The experiment has been tried out. We did it at Hampton Roads and Guantanamo, because we have one tanker present on this coast that can carry gasoline in bulk, but for the rest of the stations on this coast and all the stations on the west coast where the price run up as high as 36½ cents in drums and as high as 22.5 cents in bulk at Pearl Harbor, 21.5 cents at San Diego, and 19 cents in bulk at Puget Sound, it is not economical.

Mr. KELLEY. The proposition is this: Those drums only cost 19 cents; they deliver that oil to you at Hampton Roads in drums at 27 cents; it would be much cheaper for you to have it delivered in bulk at 19.5 cents, as Mr. Reed says, and put it in the drums yourself to supply your Atlantic stations.

Commander COBEY. It is cheaper where a large number of drums can be handled. Where only a small number can be handled, as is frequently the case, the deterioration of the drums and the cost of them is so great that it has been found to be uneconomical to handle gasoline in bulk.

Mr. KELLEY. You pay for your drums the difference between 19 cents and 27 cents; that is, 8.5 cents a gallon?

mander COBEY. Frequently a drum will not last more than a handfulings.

KELLEY. With 55 gallons, that is \$4.40 when the drum does not at \$7. That does not look like very good business.

mander COBEY. The repairs to the drums are very costly, and times after a drum has been sent out to the fleet it has to be red. Both plans have been thoroughly tried. In some cases economical, but in most cases it is not.

KELLEY. Are there different types of drums varying considerably in price?

mander COBEY. Yes, sir. The price varies with the steel used.

BYRNES. What is the average life of a drum of the size you use—you say that you can not use a drum but several times?

mander COBEY. If it is sent out to the fleet and distributed to ships filled with gasoline and it comes back, probably 25 per cent of the drums have to be repaired before further use.

BYRNES. What are they made of?

mander COBEY. Fourteen-gauge steel.

KELLEY. How many more drums do you need to handle your business?

mander COBEY. I think we would need roughly about 12,000 drums.

naval POTTER. And you have to allow 20 per cent for replacements?

KELLEY. That would be \$84,000, and you need 3,289,500 gallons of gasoline. How much does it cost to deliver a tanker down there without the gasoline in?

mander COBEY. I do not think we have any figure.

KELLEY. How often do you have to replace the drums?

mander COBEY. We figure roughly on replacing them after fillings. It all depends upon where the drums go.

KELLEY. You have worked it out so that you think you are getting it in the most economical way?

mander COBEY. That has been worked out thoroughly.

MAINTENANCE OF FUEL DEPOTS.

KELLEY. Can you give me the items for fuel plants?

naval LEUTZE. We have a statement covering that.

KELLEY. You may place this statement in the record.

naval LEUTZE. I will do so.

Maintenance of fuel depots and fuel plants at navy yards and stations available to the appropriation "Fuel and transportation," fiscal year 1923.

Name of station.	Labor.	N. S. A.	Total.
Bine, Me.	\$988.32		\$988.32
h, N. H.	12,645.12	\$5,382.36	18,027.48
as	23,373.24	2,483.28	25,856.52
Torpedo Station.		42,037.32	42,037.32
Fuel Depot.	47,382.24	36,764.40	84,146.64
Navy Yard.	7,078.76	1,535.16	8,613.92
Hook, N. J., fuel depot.	29,552.88	12,000.00	41,552.88
l, Philadelphia, Pa.	8,315.52	2,508.24	10,823.76
l, Washington, D. C.	1,616.16	196.08	1,812.24
l, Norfolk, Va.	1,795.92		1,795.92
depot, Yorktown.	22,856.28	27,360.00	50,216.28

Cost of maintenance of fuel depots and fuel plants at navy yard chargeable to the appropriation - Fuel and transport - 1923—Continued.

Name of station.	Labor.	X. 1
Sewalls Point, fuel depot		
Newport News, fuel depot		
Naval operating base		
Navy yard, Charleston, S. C.		
Naval air station, Pensacola		
Naval station, Key West, Fla.	3	0
Submarine base, San Pedro		
Naval fuel depot, San Diego		1
Naval air station, San Diego		
San Francisco Training Station		
Navy yard, Mare Island		
Naval fuel depot, Tiburon		
Navy yard, Puget Sound		
Torpedo station, Kemport		
Naval Station, Pearl Harbor	20.3	1
Submarine base, Coco Solo		1
Naval base, Guantanamo, Cuba		
Naval station, Olongapo		
Naval station, Cavite	3	
Naval station, Guam		
Naval fuel depot, Yokohama	1	
Naval fuel depot, Pichilinque		
Naval station, St. Thomas		
Naval station, Tutuila		
Naval station, Santo Domingo		
Naval air station, Coco Solo		
Total	230.3	3

The above statement prepared by using actual expenditures reported for the month as a basis, the figures representing 12 times the amounts reported for that month.

Mr. KELLEY. How much have you spent so far the maintenance of these stations?

Commander COBEY. Less than half of it is based on the January expenditures, and is coming down gradually for the past 18

Mr. KELLEY. Can you give the exact amount for the last available date?

Commander COBEY. We can procure that record.

Mr. KELLEY. Are not these maintenance costs reduced on account of the falling price of

Admiral COONTZ. I think all of that has

Captain LEUTZE. We have reduced it for a great deal. We have cut the estimates for expenditure for the present year. I have months ending February 28, the amount estimate is \$876,000 for 12 months.

Mr. KELLEY. Some of these will probably come down, will they not?

Captain LEUTZE. That is dependent out of commission. A number of them have been laid up. The coal storage at Annapolis is gone, and the coal storage at Annapolis as soon as the coal is used up, but we can estimate it, so we put in an estimate for it. The closing of certain navy yards.

Mr. KELLEY. You have made quite a reduction in estimate at navy yards?

Captain LEUTZE. Yes, sir; they are cut down to the previous figures.

KELLEY. Do you think we can cut them a little more?

LEUTZE. I do not believe we can. I went over them with a comb the other day in order to cut them down.

KELLEY. That is about all there is, except some minor items, like tug hire. Where do you have to hire tugs; have you not Navy tugs all around?

ANDER COBEY. That is where deliveries are made by barges, usually at foreign stations, or at places in the United States where coal or oil is delivered by barge. When the barge is not discharging in time there is a demurrage charge, and also a tug-hire.

It is not a large figure.

My sheet for memorandum of 20 March reestimate under "Fuel and transportation, 1923."

WATER.

93
88

81 six months multiplied by 2=197,727.62 for 12 months, 1922.
82 multiplied by 0.598 ratio vessels to be in commission in 1923.

12
11 added 10 per cent to cover vessels not reporting.

23

ICE.

54 six months multiplied by 2=46,465.08 for 12 months, 1922.
58 multiplied by 0.598 ratio vessels to be in commission in 1923.

12
31 added 10 per cent to cover vessels not reporting.

73

TUG HIRE.

6 12 months, 1922.
8 multiplied by ratio vessels to be in commission in 1923.

6
6 added 10 per cent to cover vessels not reporting.

6

ELECTRIC CURRENT.

22 six months multiplied by 2=247,867.64 for 12 months, 1922.
4 multiplied by 0.598 ratio vessels to be in commission in 1923.

27
5 added 10 per cent to cover vessels not reporting.

4

DEMURRAGE.

6 12 months, 1922.
8 multiplied by ratio vessels to be in commission in 1923.

6
6 added 10 per cent to cover vessels not reporting.

6

Estimates, 1923—Cost of leased fuel-oil storage tanks (including charges) and property used for naval fuel depots chargeable to appropriation "Fuel and transportation," fiscal year 1923.

Location.	Owner.	Capacity (barrels).	Rental— line:
Sewall Point, Va.....	Standard Oil Co. of New Jersey	55,000	Rental.....
Balboa, No. 101.....	Panama Canal.....	42,000	Rental.....
Cristobal, No. 151.....	do.....	42,000	Rental.....
Constantinople.....	Standard Oil Co. of New York..	42,345	Rental.....
Naval fuel depot, Constable Hook.....	Standard Oil Co. of New Jersey	(1)	do.....
Naval fuel depot, Sewall Point, Va.....	Virginian Ry. Co.....	(2)	do.....
Naval fuel depot, Newport News, Va.....	Chesapeake & Ohio Ry. Co....	(3)	do.....
Total.....			
1 10 acres.	2 42.6 acres.	3 40 acres	

Handling charges shown above based on actual issues for the 12 months ending January 1 per barrel into and \$0.04 per barrel out of tanks.

Captain LEUTZE. The Standard Oil Co. will make a tugs if you hold the tugs over a certain number of h they have to pay for the overtime.

Mr. KELLEY. Of course, while we have plenty of tug times when we need tugs at places where we have not have to hire them.

Commander COBEY. Yes, sir; and the demurrage is the same way.

ALASKAN COAL DEVELOPMENT.

Mr. KELLEY. I think these are the most illuminating details that I have ever seen since I have been here in with the fuel item. This has always been a more or some item, because it can not be reduced to an exact

There is one thing in connection with fuel.] we realize from the Alaska development?

Secretary DENBY. That is another uncertain thing.] turned over to the Interior Department, and they are] the naval reserves.

Mr. KELLEY. They do not intend to take any coal c of

Secretary DENBY. Yes, sir; there will be coal c and we will, perhaps, buy it like anybody else.] indefinitely underground.

Mr. KELLEY. You could save a lot in freight by g there, could you not?

Secretary DENBY. The freight is \$5 per t c fr

Admiral ROBISON. The Secretary of t asking about a differential in favor of Al c o coal at Pacific points, so as to furni I it to our estimates, it will cost to deliver A c in \$2.50 per ton more than it costs to deliver r

think that condition will continue, but it is the condition at that time.

ELLEY. Do they haul it down by wagons?

MR. ROBISON. No, sir; over the Alaska railroad, but the railroad rates are not very low.

ELLEY. Under the circumstances, you will not want this?

MR. DENBY. No, sir; we have asked for \$100,000.

ELLEY. You want the language in with the \$100,000?

MR. DENBY. No, sir; we do not want anything for that.

1. The first part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as $t \rightarrow \infty$. It is shown that the solutions of the system (1) tend to zero as $t \rightarrow \infty$ if and only if the matrix A is Hurwitz.

2. The second part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as $t \rightarrow \infty$. It is shown that the solutions of the system (1) tend to zero as $t \rightarrow \infty$ if and only if the matrix A is Hurwitz.

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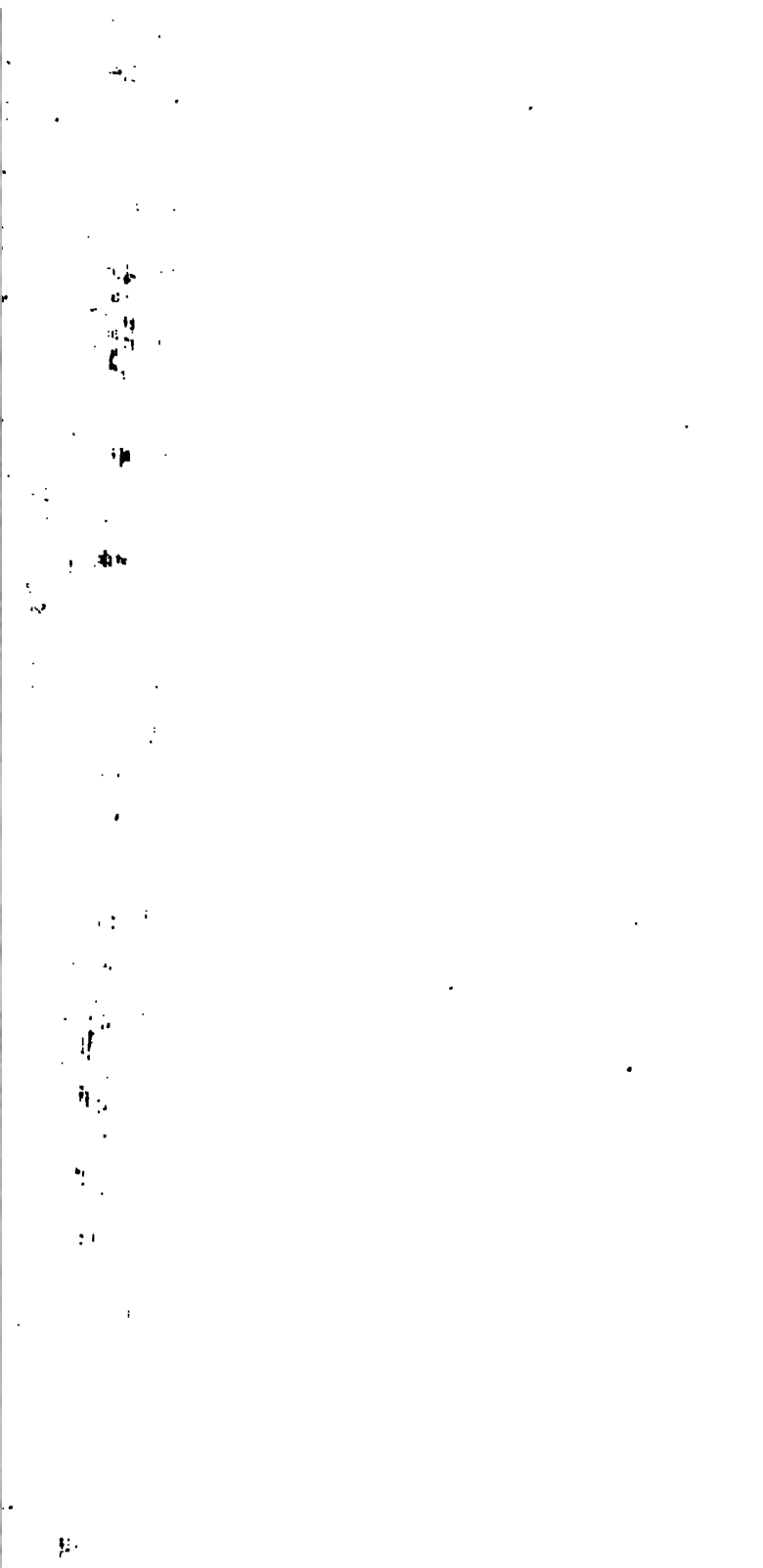
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ew.....	827
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[COMMITTEE PRINT.]

CONGRESS, } HOUSE OF REPRESENTATIVES. } REPORT
Session. } No. —.

7 DEPARTMENT AND NAVAL SERVICE APPROPRIATION BILL, FISCAL YEAR 1923.

3, 1922.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

CELLEY of Michigan, from the Committee on Appropriations, submitted the following

REPORT.

(To accompany H. R. —.)

Committee on Appropriations submit the following report in relation of the accompanying bill making appropriations for the Department and the Naval Service for the fiscal year ending 30, 1923:

SCOPE OF BILL.

This bill embraces all regular annual appropriations on account of any Department and the Naval Service which heretofore have been carried in the naval appropriation act, the legislative, executive and judicial appropriation act, and an item for printing and binding in the sundry civil appropriation act, and is based upon estimates appearing on pages Nos. 31 and 299 to 344 of the Alternative Budget, and in House Documents Nos. 194, 202, 203, 216, and 218 of the present session. This consolidation has permitted the grouping of appropriations relating to a particular bureau or office. A detailed tabulation will be found at the end of this report showing appropriations for the fiscal year 1922, the estimates for the fiscal year 1923, and the increase or decrease in appropriations and estimates compared to the amounts recommended in this bill.

APPROPRIATIONS AND ESTIMATES.

The following is a summary of the appropriations for 1922, the estimates and supplemental estimates for 1923, and the amounts proposed in this bill:

	Appropriated, 1922.	Estimates, 1923.	Proposed, 1923.
Department.....	\$2,566,660.00	\$2,435,610.00	\$3,479,900.00
Service.....	410,673,289.23	423,060,785.13	229,744,108.00
Naval.....	413,239,949.23	425,486,395.13	283,224,008.00

The amount proposed for the naval service (\$22,180,929,181.23 less than the appropriations for 1 year and \$193,306,677.13 less than the estimates.

CONTROLLING APPROPRIATION FACTORS.

The committee has been guided in the preparation of two controlling factors. First, to translate into a real hope given to the country that the Conference on the Armament would result in the burdens of preparation materially lightened, which accounts in large measure for the tremendous savings effected in this bill. It would seem fit to point to draw attention to the following passage from remarks at the opening of the conference on the 12th day of December, 1921:

Out of the cataclysm of the World War came new fellowships and new aspirations. It is ours to make the most of them. A world at peace with its burden lifted. Humanity which has been shocked by war must endeavor to minimize the agencies of that destruction. Contemplating the new world war and the continuing burden of armament, all thoughtful people are in favor of limitation of armament and would like war outlawed. In soberest calculation, the world's hundreds of millions who pay in peace and die in war would turn the expenditures for destruction into means of constructive work for the state for those who live and follow after.

Those words created a hope and expectation in the hearts of the people throughout the land, and it was not the purpose of the committee to permit them to be turned into a mockery.

The other controlling factor in the preparation of the policy of the committee to provide adequately for the Navy was the size as under the terms of the pending treaty the United States would be entitled to maintain.

The Conference on the Limitation of Armament at Washington, D. C., in 1921, proceeded on the assumption that sufficient capital ships would be provided to keep these capital ships in full commission. In addition to the necessary destroyers, submarines, cruisers, and tenders, airplane carriers, ammunition ships, and every other auxiliary necessary to make the fleet complete, well rounded out, and properly equipped. In other words, our purpose has been to give effect to the provisions contemplated by the pending treaty and to maintain our relative strength unimpaired. Beyond that, we have not gone.

In addition to making proper provision for the Navy, adequate personnel has been provided for the Far East, in Central and South America, in the Mediterranean, as experience has shown, to protect American interests.

In arriving at proper conclusions as to the number of auxiliary ships which would be needed fully to man the fleet and to meet patrol requirements, the committee found it a little difficult. Such a list of ships was prepared by the committee and the Navy Department, and after agreeing upon the list of ships was to be required to man them. At this point the committee had difficulty because of the varying opinions of the ships' quotas. It was finally decided to

on these identical ships on some recent available date and to add largely in providing personnel by the number actually upon the ships on the date selected. The Committee on Naval Affairs had gone into this matter of personnel quite extensively only a few weeks ago and had obtained the information, which this committee desired, as of February 1, 1922. The committee, therefore, used the figures of that date given to the Naval Committee by the War Department.

The committee believes that it will be of decided advantage to the members of the House in considering the size of the enlisted force to have printed in this report the names and types of ships in the department and the committee practically agree should be maintained and operated, together with the number of men on each ship as of February 1, 1922, or the number the department says should be carried where the number aboard on February 1, 1922, obviously was insufficient or where such number in excess of the number the department considers should be carried.

Such a list follows:

and necessary auxiliaries:

Battleships—

Delaware.....	935
North Dakota.....	995
Florida.....	868
Utah.....	879
Wyoming.....	1,048
Arkansas.....	1,074
New York.....	1,037
Texas.....	1,039
Nevada.....	959
Oklahoma.....	929
Pennsylvania.....	1,029
Arizona.....	988
New Mexico.....	1,062
Mississippi.....	997
Idaho.....	974
Tennessee.....	998
California.....	1,294
Maryland.....	1,154
	<hr/> 18,259

Cruisers—

Armored --	
Huron.....	684
Seattle.....	1,791
First class, Rochester.....	366
Second class, 3 light cruisers (building).....	2,990
Third class—	
Birmingham.....	276
Cleveland.....	1,288
Denver.....	1,288
Galveston.....	1,288
Tacoma.....	277
	<hr/> 4,248

Destroyers (93 men each)..... 9,579

Submarines (30 men each)..... 2,520

Destroyer tenders—

Melville.....	332
Black Hawk.....	349
Bridgeport.....	1,520
Altair.....	1,450
Denebola.....	1,450
Rigel.....	1,450
	<hr/> 2,551

¹ Men proposed.

⁴ Complement.

The fleet and necessary auxiliaries—Continued.

7 submarine tenders—

Camden.....	
Savannah.....	
Beaver.....	
Bushnell.....	
Fulton.....	
Rainbow.....	
Canopus.....	

1 aircraft carrier, Langley.....

1 aircraft tender, Wright.....

2 mine layers—

Baltimore.....	
Shawmut.....	

10 light mine layers—

Mahan.....	
Murray.....	
Maury.....	
Israel.....	
Ingraham.....	
Ludlow.....	
Burns.....	
Anthony.....	
Rizal.....	
Hart.....	

10 mine sweepers (tugs)—

Chewink.....	
Curlew.....	
Lark.....	
Mallard.....	
Penguin.....	
Seagull.....	
Whippoorwill.....	
Tanager.....	
Finch.....	
Bittern.....	

2 repair ships—

Vestal.....	
Prometheus.....	

3 storeships—

Rappahannock.....	
Bridge.....	
Artic.....	

14 fuel ships—

Arethusa.....	
Brazos.....	
Cuyama.....	
Jason.....	
Kanawha.....	
Nereus.....	
Orion.....	
Patoka.....	
Proteus.....	
Ramapo.....	
Sapelo.....	
Trinity.....	
Naches.....	
Pecos.....	

nd necessary auxiliaries—Continued.

mmunition ships—

Nitro.....	1 177	
Pyro.....	1 177	
		354

ospital ships—

Mercy.....	268	
Relief.....	1 361	
		629

Total for fleet and necessary auxiliaries..... 45,454

vessels otherwise classed:

argo ships—

Bath.....	1 88	
Beaufort.....	71	
Kittery.....	1 87	
Newport News.....	1 113	
Capello.....	81	
Sirius.....	1 91	
Vega.....	81	
		612

ansports—

Argonne.....	211	
Henderson.....	1 397	
Chaumont.....	1 214	
		822

unboats—

El Cano.....	83	
Monocacy.....	1 46	
Palos.....	1 46	
Pampanga.....	30	
Quiros.....	47	
Sacramento.....	1 152	
Villalobos.....	56	
Wilmington.....	151	
Ashville.....	1 148	
		759

achts and patrol vessels—

Isabel.....	1 83	
Mayflower.....	1 160	
Nokomis.....	1 66	
Scorpion.....	1 132	
Sylph.....	1 32	
Vixen.....	1 72	
		545

et tugs—

Contocook.....	39	
Montcalm.....	1 37	
Napa.....	39	
Ontario.....	54	
Osceola.....	34	
Potomac.....	42	
Somona.....	54	
Tadousac.....	39	
		338

et towing vessels (tugs)—

Bobolink.....	1 45	
Robin.....	1 45	
Vireo.....	1 45	
Rail.....	1 45	
Quail.....	1 45	
Brant.....	1 45	
Cardinal.....	1 45	
Kingfisher.....	1 45	
Partridge.....	1 45	
Tern.....	1 45	
		450

Patrol and vessels otherwise classed—Continued.

1 survey ship, Hannibal.....	1
2 Bureau of Fisheries—	
Albatross.....	1
Fish Hawk.....	1
5 miscellaneous—	
Gold Star.....	1
Regulus.....	1
Antares.....	1
Procyon.....	1
General Alava.....	1

51	Total for patrol and vessels otherwise classed.....
327	Grand total.....

The foregoing constitute, with the exceptions the number of vessels which the department is the committee it desired to operate next year to tion from the committee as to the number of might be appropriated for. They call for a total of to which should be added 632 men serving in on February 1, 1922, and 700 additional men for swelling the total to 50,824. In this total men have been allowed for different vessels over a ber actually on board on February 1, 1922, and 33 allowed for each of 103 destroyers, while destroy on February 1, 1922, had an average of 87 men number, if applied to the 103 destroyers, would total of 50,824 by 618 men.

An allowance, therefore, of 50,000 men for the coming year, the committee believes will meet the situation.

A request of the Navy Department for 23 in reduced commission with half of their commission for men to operate Eagle boats and subchasers are the only deductions made by the committee in number of men required.

The Eagle boats and subchasers have been year largely by the Naval Reserve Force. That until the Naval Reserve situation is satisfactory legislation such training of reservists that the Navy desires to do during the coming year may summer months on board regular vessels or the days of the Naval Militia.

On the 1st of July, 1916, there were 362 vessels. On March 1, 1922, there were 931 vessels in the list of the table below will disclose that on the destroyers and submarines, the Navy was additional vessels of a nondescript character, including chasers, tugs, yachts, motor boats, and so on. It is to this portion of the table that the committee directs the attention of Congress. If these craft, built or picked up during the war for be retained in the service and kept in full commission of dollars will be required for their main-

The committee has declined to make provision for the of the Navy. It should be laid up and whenever possible constitutes a millstone around the neck of the Navy.

of vessels in the United States as of July 1, 1916, and March 1, 1922.

	(1)	(2)	(2a)	(3)	(4)	(5)	(6)	(7)	(8)
	Ves- sels in the Navy July 1, 1916.	Vessels added since July 1, 1916, under author- ization prior to that date	Ves- sels added under naval act, Aug. 29, 1916.	Vessels em- braced by (1), (2), and (2a), stricken from Navy list (to Mar. 1, 1922).	Vessels on Navy list Mar. 1, 1922, after adding (2) and (2a) to (1) and deduct- ing (3).	Vessels added to Navy un- der sepa- rate and special author- ization since Aug. 29, 1916 (to Mar. 1, 1922).	Vessels em- braced by (5) strick- en from the Navy list (to Mar. 1, 1922).	Vessels em- braced by (5) on Navy list Mar. 1, 1922.	Vessels em- braced by (4) and (7).
.....	36	6	1	9	34	0	0	0	34
d line.....	7	0	0	7	0	0	0	0	0
.....	16	0	0	5	11	0	0	0	11
.....	19	0	0	7	12	0	0	0	12
s.....	0	0	0	0	0	1	0	1	1
.....	0	0	0	0	0	4	0	4	4
.....	34	0	0	34	0	0	0	0	0
.....	47	11	38	14	82	219	0	219	301
ers.....	0	0	0	0	0	14	0	14	14
.....	38	34	40	18	94	6	0	6	100
ies.....	0	3	0	0	3	0	0	0	3
.....	8	0	0	0	8	12	0	12	20
.....	0	0	0	0	0	60	6	54	54
.....	0	0	0	0	0	341	277	64	64
.....	38	0	1	19	10	0	0	0	10
.....	14	0	0	6	8	0	0	0	8
.....	20	2	3	5	20	10	0	10	30
.....	8	0	2	0	10	19	0	19	29
.....	47	0	0	29	18	22	0	22	40
.....	0	0	0	0	0	49	3	46	46
.....	1	0	1	0	2	2	0	2	4
.....	4	1	0	3	2	2	0	2	4
.....	4	1	0	0	5	4	0	4	9
.....	21	0	0	8	13	17	.....	.....	30
.....	382	58	86	164	332	782	286	479	828
s.....	(*)	(*)	(*)	(*)	(*)	40	14	26	26
.....	(*)	(*)	(*)	(*)	(*)	13	0	13	13
s.....	(*)	(*)	(*)	(*)	(*)	0	.....	.....	48
boats.....	(*)	(*)	(*)	(*)	(*)	3	0	3	3
.....	(*)	(*)	(*)	(*)	(*)	0	.....	.....	13
.....	.....	.....	.....	.....	.....	.....	.....	.....	103
tal.....	.....	.....	.....	.....	.....	.....	.....	.....	931

transferred to status of light mine layers.

purchase or transfer.

transferred from some classified status.

organized in 1916.

the first three months of this fiscal year the expenditures maintenance and operation of Eagle boats amounted to \$11, and for the same period \$203,945.27 was spent for the ice and operation of subchasers. The chief drain, however, the destroyers. Of these craft we have 301, of which 219 sive of those built prior to and under the big program l in the naval appropriation act for the fiscal year 1917. -built destroyers call for a total of 24,966 enlisted men y manned, and during the last completed fiscal year it aintain and operate the entire number of destroyers the is sum of \$75,869,098.92. This sum is approximately but

four and one-half millions less than the entire naval appropriation act for the fiscal year 1914, appropriations for the Marine Corps and for : These several types of small craft obviously account for large naval expenditures following the cessation of war. The destroyers alone, for example, during the first of the present fiscal year consumed approximately of fuel oil at an average price of \$2.56 per barrel—a months of \$2,511,822, which is at the rate of \$10,047, and it should be borne in mind that prior to the war fuel bill never exceeded \$5,631,000 per annum.

As to the shore stations, the committee found in 1922, 12,633 men were distributed as follows:

Receiving ships and barracks.....	
Navy yards and stations.....	
Training stations and trade schools.....	
Hospitals.....	
Prisons.....	
Communications.....	
Aviation.....	
Ammunition depots.....	
Recruiting.....	
Total.....	

Having in mind the reduced establishment at pending treaty and by the policy of keeping the 18-battleship fleet and necessary believes that the number of men considered to be ample for shore purposes:

Receiving ships and barracks.....	
Navy yards and stations.....	
Training stations and trade schools.....	
Hospitals.....	
Prisons.....	
Communications.....	
Aviation.....	
Ammunition depots.....	
Recruiting.....	

Total.....

The committee has provided for approximately shore-duty assignments. There will, therefore, of about 7,000 unassigned men to take be sick, on leave, undergoing sentence within the service, or under training. under probable conditions of reenlistment as well as under the practice to train as should be negligible. Notwithstanding made an allowance for not less than 2,000.

By way of conclusion, therefore, the course which has enabled the enactment of this bill, such reduction was made possible by the work of the Conference on the Limitation of Armaments, and by the disposal of surplus destroyers, and by the fact that it not in any way contribute to the reduction of the Navy has thus, it believes, paved the way to

the country that unnecessary burdens of armament would but in doing so it believes that the course it proposes will not jeopardize the Nation's security.

NAVAL SERVICE.

PERSONNEL.

Therefore stated the appropriations in this bill are based upon enlisted men and 2,000 apprentice seamen. A paragraph is requiring the Secretary of the Navy, immediately upon passage of the bill, to begin to reduce the enlisted strength of the Navy without pay, discharge, or otherwise, under such regulations as he may prescribe, so that the average number of enlisted men in the Navy during the fiscal year 1923 will not exceed the number of 1922. Such paragraph enables the Secretary immediately to begin to reduce in the manner indicated men who have served less than 18 years and men who have served between 18 and 25 years in the service, in the discretion of the Secretary, either to continue in the service or transfer to the Fleet Naval Reserve men who have served over 12 years and less than 25 years, and preserves to all such men the right to go out by reason of the provision continuous service rights, and emoluments in the event of their being reenlisted. There were in the Navy on February 1, 1922, 6,156 officers of the staff. In addition to this number there were in the Navy 389 reserve officers on active duty, making a total of 6,545. To this number should be added 535 graduates from the Naval Academy in case the full number of such graduates are commissioned in the Navy. This would make a grand total of 7,080 officers to be provided for during the coming year. By reason of the savings made possible by the pending treaty and by carrying out the policy proposed by the committee to lay up surplus destroyers and to eliminate some 254 vessels of a nondescript character, of little monetary value, from the service, it is not believed that the full number of officers above specified as being available for the coming year will be necessary. A reduction, therefore, is proposed of 724 officers. This reduction is brought about by making no provision for re-commissioning in the service on active duty naval reserve officers except by commissioning only 200 of the 535 graduates of the Naval Academy. The balance of the officer personnel is in no way diminished by this bill. Whatever reductions are made, if any are made in the future, should be made after careful consideration in such manner as will not disturb the efficiency of the naval service. Naturally the consideration of this question will fall within the jurisdiction of the Naval Committee of the House. The original estimates for the "Pay of the Navy" were based upon the rates of pay then in effect and on the rates of pay prescribed in the act of May 18, 1920 (Stat. 601). With the exception of certain provisions, that act was by its own terms on June 30, 1922. It is, therefore, proposed that the amounts carried for "Pay of the Navy" in this bill be based on the rates of pay and the allowances prevailing under the approval of the act of May 18, 1920. Legislation is now before Congress looking toward the permanent adjustment of the rates of pay and allowances of the Navy and various other

services, but as yet no action has been taken by the purposes of this appropriation any provision disregarded. Because of the application of the old allowances and of the proposed reduction in enlisted personnel, as heretofore stated, a reduction of \$51,300 effected below the estimates. In the event that the act of May 18, 1920, should be extended or in modified form it will be necessary to appropriate for "Pay of the Navy." The continuation of the would require a further appropriation of approximately

PROVISIONS, NAVY.

The reduction in personnel and the allowance of 45 of 50 cents as the cost of a ration, permits or reduction head of \$8,968,317 below the estimates. For the above the Army rate, but it is understood that reporting provisions is not charged to the Army the Navy, and besides, the Navy ration, under the greater in quantity.

FUEL AND TRANSPORTATION.

The current appropriation for fuel originally provided in the second deficiency act, 1922, the Secretary of the Navy estimated to use in addition thereto \$6,282,685.33 and of sums saved under other current appropriations. The estimate for fuel for 1923 called for \$25,000,000 on an enlisted strength of 106,000 men and a great number of vessels which it is intended to be placed out of commission or sold. The estimate, submitted at the hearings, is \$17,426,000.51. The committee proposes \$16,000,000 and believes that this sum will be sufficient if the department continues to watch the fuel expenditure as it has during the past few months. The Navy estimates an estimated deficiency of \$12,500,000 for fuel. The best reports would indicate that instead of \$12,500,000 of \$6,282,685.33 allowed in the second deficiency act, the care of the situation, and the committee desire to commend the Secretary of the Navy for bringing about economy.

The Bureau of Engineering is conducting an experiment in the use of fuel oil and the results in fuel economy have been amazing. Next year, with a better economy and with constant pressure for economy, the committee believe the sum it proposes will be sufficient.

PUBLIC WORKS.

The amount proposed under this head is \$1,657,000 for the completion of various annual dredging operations, and of the repairs to be appropriated and to be made immediately of the serious condition of the dikes, wharves, and Island, Calif. These wooden-built structures

teredo to the extent, the committee is told, that all are likely way at any time. The matter was the subject of a special e, and the entire improvement is estimated to cost \$2,800,000. mittee proposes \$750,000 in this bill to do a portion of the

AVIATION.

amount proposed under this head is \$7,986,560. This sum the amount appropriated for the present fiscal year for the imposes by \$953,519. Under the rules of the House this com- has no jurisdiction over new construction of aircraft or new ction at aircraft stations and for that reason it has not been to carry any money in this bill for such purposes. It is ad that approximately \$7,306,575 will be needed for new and \$500,000 for construction work at aircraft stations. Congress should appropriate these additional sums the total ation for the coming year would amount to \$15,793,135. r, owing to the rules of the House, above mentioned, your e only proposes \$7,986,560.

NAVAL ACADEMY.

committee is not aware that the next class admitted to the ademy will be reduced below the number now permissible, refore proposes about the same sums for the Naval Academy 3 as were appropriated for the present fiscal year. A pro- made elsewhere in the bill, however, to reduce the midship- tion allowance from \$1.08 to 80 cents, which latter amount, mittee is informed, is about the actual cost.

uperintendent of the academy proposed that the number of instructors at the academy, of whom there are 118, be from a third to a half, their places to be taken by naval These professors are paid out of a lump sum and the the committee proposes will continue in the neighborhood them and provide compensation for the physical instructors, whom the superintendent wishes appropriated for as other instructors.

MARINE CORPS.

original estimates of the Marine Corps are based upon an enlisted strength of 20,000 men and call for a total appro- of \$28,423,336.20, an increase over the sum appropriated current fiscal year of \$722,994.30, for which the appropriations were made on the basis of 21,000 enlisted men. The current ations on account of the Quartermaster's Department are ler the amount normally necessary for a force of 21,000 men, ccunts for the increase in the original estimates over the appropriations, although the estimates cover 1,000 fewer n framing the appropriation bill under which the Marine : now functioning the committee took into account a con- e quantity of reserve supplies and, frankly, gambled more or a declining market. The Marine Corps will not incur a defi- not entirely due to the committee's better judgment, but to the persistent efforts of the commandant of the corps,

assisted by the quartermaster of the corps, to cut expenses in the possible way, and no better illustration of the cooperation here may be cited than the splendid accomplishments of the crew of the base at Quantico, Va.

The amount proposed in this bill for the Marine Corps is \$24,983, which is \$2,716,819.90 less than the current appropriations \$3,439,814.20 less than the estimates. The amount provided for 19,500 enlisted men and approximately the same number of officers as are now in the service, i. e., 942, but is on the basis of pay rates prevailing prior to the act of May 18, 1920 (41 Stat., 100) by reason of which a reduction of \$1,166,234.46 has been made.

The total number of enlisted men in the Marine Corps on March 1, 1922, was 20,650. The committee believes that as soon as marines are withdrawn from Santo Domingo, where in the number of 2,000 are now stationed, that 17,500 enlisted men should be able to meet all reasonable demands upon the corps. It is understood that the administration intends to bring these marines back some time during the ensuing fiscal year, but circumstances render the time so uncertain that the committee feels that it would be unwise to attempt to make upon a time and curtail appropriations upon such an uncertainty. It has the assurance of the Secretary of the Navy commandant, however, that as soon as the marines in Santo Domingo are returned, wholly or in part, they will not enlist or reenlist to take their places.

INCREASE OF THE NAVY.

No money is appropriated under this head. The Budget in 1923 is \$85,000,000 as against an appropriation for the current fiscal year of \$90,000,000, but the figure in the Budget, of course, was submitted well in advance of the Conference on the Limitation of Armament.

On the 1st of March, 1922, there were 74 vessels in various stages of construction, as follows:

Battleships.....	.....
Battle cruisers.....	.....
Scout cruisers.....	.....
Repair ship.....	.....
Destroyer tenders.....	.....
Submarine tenders.....	.....
Gunboat.....	.....
Destroyers.....	.....
Submarines.....	.....
Fleet submarines.....	.....
Total.....	.....

Of these vessels work on 7 of the battleships and all 6 of the battle cruisers has been stopped by reason of the Conference on the Limitation of Armament. Under the terms of the pending treaty 7 of the 9 battleships must be scrapped. Of the 6 battle cruisers the treaty permits the conversion of 2 into aircraft carriers, but to do this must first be legislation. Eliminating all of these large vessels there remain under construction 59 vessels, 36 of which were authorized in the naval appropriation act for the fiscal year 1917 of types, with the exception of the 3 destroyers, which are 100 per cent complete, greatly needed in the Navy to maintain the

to replace old and improvised craft which are a source of expense to maintain and operate.

Estimated cost to complete two of the battleships and two of cruisers as aircraft carriers, permissible under the terms of treaty, and to complete the 59 smaller vessels, all dating 1, 1922, is as follows:

Machinery.....	\$115,000,000
Armament.....	19,400,000
Accessories.....	10,600,000
	<hr/> 5,133,000
	150,133,000

Estimated cost to alter and complete two battle cruisers as carriers is as follows:

Machinery.....	\$31,887,000
Armament.....	6,400,000
	<hr/> 4,600,000
Accessories.....	5,133,000
	<hr/> 48,020,000

Estimated cost to build two aircraft carriers complete that comparable with the two battle cruisers to be converted is

Machinery.....	\$48,000,000
Armament.....	7,800,000
	<hr/> 4,600,000
Accessories.....	5,133,000
	<hr/> 65,533,000

Appropriations heretofore made on account of increase of the remained unexpended on March 1, 1922, the following

Navy, construction and machinery.....	\$17,445,120
Navy, torpedo boats.....	5,785,300
Navy, armor and armament.....	26,558,943
Navy, ammunition.....	6,549,096
Navy, torpedo-boat destroyers.....	14,820,707
	<hr/> 71,159,166

used that whatever balances there may be remaining unexpended appropriations on the date this bill becomes law shall be applied toward the completion of the vessels now under construction which are not affected by the terms of the pending treaty for the conversion of two battleships to be proceeded with and the two battle cruisers to be converted into aircraft carriers, if their conversion be approved, and to this end, including the additional objects therein provided for in the following paragraph is proposed in this bill under "Increase of the Navy:"

That the Secretary of the Navy may use interchangeably the unexpended appropriations made on account of the approval of this act under appropriations made on account of "Increase of the Navy," including any remaining under the appropriation "Increase of the Navy, destroyers," for the prosecution of work on vessels under construction on such date the construction of which may be proceeded with under the terms of the treaty providing for the limitation of naval

armament concluded on February 6, 1922, published in Senate ment Numbered 126 of the present session; for the conversion of aircraft carriers, including their complete equipment of aircraft and aircraft accessories, in accordance with the terms of such treaty, to battle cruisers the construction of which had been heretofore continued when the conversion of such battle cruisers shall have been authorized for the settlement of contracts on account of vessels already delivered to the Navy Department; for the completion of torpedoes under manufacture on April 8, 1922, not to exceed four hundred; and for the installation of fire-control instruments on the U. S. S. Maryland and on the destroyers heretofore constructed, and such balances shall not be available for any other purposes.

It is the thought of the committee that all expenses incident to the stoppage of work and the scrapping of vessels as a result of the Conference on the Limitation of Armament should be defrayed out of a special appropriation later to be provided for such purpose, which also would provide for reimbursement to the appropriation now current any expense incurred on account of such vessels when the work thereon was stopped on February 8, 1922, which, if adopted, would have the effect of further enlarging the total unexpended balance on the date this bill becomes law. In this way the people and the country will know the total cost of the scrapping of vessels and it will enable a better check to be had on the cost of construction work to be proceeded with.

The following table is published for the information of the committee showing the vessels authorized in the act of August 29, 1916, the number finished, the number building which will be completed, the number to be scrapped, and the number which have never commenced:

	Number authorized.	Number completed.	Number building to be completed.	Vessels to be scrapped.
Battleships.....	10	1	12	7
Battle cruisers.....	6		12	4
Scout cruisers.....	10		10	
Destroyers.....	50	34		
Fleet submarines.....	9		3	
Coast submarines.....	58	40	18	
Fuel ships.....	3	3		
Repair ships.....	1		1	
Transport.....	1			
Hospital ships.....	1	1		
Destroyer tenders.....	1		2	
Fleet submarine tenders.....	2		1	
Ammunition ships.....	2	2		
Gunboats.....	2	1	1	
Total.....	156	86	40	11

¹ Work stopped; battle cruisers to be converted into aircraft carriers.

NAVY DEPARTMENT.

The amount proposed in this bill for the Navy Department, \$3,479,900, exceeds on its face the appropriations for the fiscal year by \$913,240 and the estimates by \$1,044,290. The sum estimated actually is \$131,050 less than the current appropriations and the total sum proposed actually is \$51,450 less than the current appropriations.

appropriations from a comparable standpoint. The legislative, and judicial appropriation act, it will be recalled, fixed the expenditure of a certain fixed sum from naval appropriations for the services of draftsmen and such other technical services of the technical bureaus of the Navy Department. As the draft and the naval service are provided for together in this bill, it is proposed to appropriate directly under the Navy Department technical services, as well as to appropriate under the Navy Department for the employees of the Navy allotment, disbursing and pay accounting offices, who are now being paid from the naval appropriation "Maintenance, Bureau of Supplies and Accounts," and of \$1,095,740 has been added to the appropriations of the Department pursuant to such course, a corresponding sum has been taken off of the naval appropriations thus relieved.

Salary increases are provided for under the Navy Department, in accordance with the committee's policy, and but one additional position has been created. The department proposed that an expert photographer be employed in the Office of Chief of Naval Operations and that from the naval appropriation "Gunnery and Engineering," the duties of the proposed position being entirely incident to every exercises. The committee proposes a direct appropriation of \$100 for a photographer under the Office of Chief of Naval Operations.

It might appear to be the creation of a number of positions is the appropriations being provided under the offices in which they are actually engaged and not under the offices from which they are paid.

The fact is that a reduction is shown in the nontechnical services of a number of the offices. The committee did not feel disposed to reduce the estimates proposed because it is realized that the coming down of the size of the Navy, the scrapping of vessels, and the commissioning of vessels will impose extra work on the department when such work has been completed there would appear to be no reason why an appreciable reduction in force should not be made.

armament concluded on February 6, 1922, ment Numbered 126 of the present session; for craft carriers, including their complete equip craft accessories, in accordance with the terms of battle cruisers the construction of which had be when the conversion of such battle cruisers shau for the settlement of contracts on account of ves the Navy Department; for the completion of ton on April 8, 1922, not to exceed four hu of fire-control instruments on the U. S. S. sroyers heretofore constructed, and such l nces a for any other purposes.

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	Number authorized.	Number completed.	Number building to be completed.	Vessels to be scrapped.
Battleships.....	10	1	12	
Battle cruisers.....	6		12	
Scout cruisers.....	10		10	
Destroyers.....	50	38		
Fleet submarines.....	9		3	
Coast submarines.....	54	40	18	
Fuel ships.....	3	3		
Repair ships.....	1		1	
Transports.....	1			
Hospital ships.....	1	1		
Destroyer tenders.....	2		2	
Fleet submarine tenders.....	1		1	
Ammunition ships.....	2	2		
Gunboats.....	2	1	1	
Total.....	136	88	68	

¹ Work stopped: battle cruisers to be converted into aircraft carriers.

NAVY DEPARTMENT.

The amount proposed in this bill for t 1 y \$3,479,900, exceeds on its face t a fiscal year by \$913,240 and the t sum estimated actually is \$131,000 u tions and the total sum proposed a y

appropriations from a comparable standpoint. The legislative, and judicial appropriation act, it will be recalled, the expenditure of a certain fixed sum from naval appropriation for the services of draftsmen and such other technical service technical bureaus of the Navy Department. As the demand and the naval service are provided for together in this bill, used to appropriate directly under the Navy Department technical services, as well as to appropriate under the Navy Department for the employees of the Navy allotment, disbursing and accounting offices, who are now being paid from the naval appropriation "Maintenance, Bureau of Supplies and Accounts," and \$1,095,740 has been added to the appropriations of the department pursuant to such course, a corresponding sum has been taken off of the naval appropriations thus relieved.

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It might appear to be the creation of a number of positions in the naval appropriations being provided under the offices in which they actually are engaged and not under the offices from which they are now paid.

The fact is that a reduction is shown in the nontechnical number of the offices. The committee did not feel disposed to reduce the number of the offices proposed because it is realized that the going down of the size of the Navy, the scrapping of vessels, and the commissioning of vessels will impose extra work on the department when such work has been completed there would appear to be no reason why an appreciable reduction in force should not be made.

Do.....	under other current appropriations).	25,000.00	700,000.00	520,000.00	-25,000.00	-180,000.00
Do.....	Service records of officers and men.	800,000.00	18,000.00	16,000.00	-4,000.00	-2,000.00
Do.....	Recreation for enlisted men.	20,000.00	95,000.00	93,000.00	-6,800.00	-1,800.00
Do.....	Contingent.	100,000.00	750,000.00	690,112.00	-59,888.00	-39,888.00
Do.....	Gunners and engineering exercises.	750,000.00	90,000.00	90,000.00	-15,000.00	
Do.....	Instrument and supplies.	105,000.00	125,000.00	125,000.00		
Do.....	Ocean and lake surveys.	125,000.00	360,000.00	160,000.00	-60,000.00	+50,000.00
Do.....	Naval Training Station, California.	185,000.00	360,000.00	360,000.00		-200,000.00
Do.....	Naval Training Station, Rhode Island.	400,000.00	360,000.00	360,000.00	-15,000.00	
Do.....	Naval Training Station, Great Lakes, Ill.	546,805.00	200,000.00	50,000.00	-546,805.00	
Do.....	Compensation for land.	375,000.00	100,000.00	50,000.00	-50,000.00	
Do.....	Naval Training Station, Hampton Roads.	50,000.00	90,950.00	90,950.00		
Do.....	Naval Reserve Force.	50,000.00				
Do.....	Receiving barracks.	50,000.00				
Do.....	Naval War College, Rhode Island.	90,950.00				
	Total, Bureau of Navigation.....	7,963,345.00	9,788,110.00	7,295,197.00	-668,148.00	-2,492,913.00
Legislative and naval.	Bureau of Engineering:					
Do.....	Salaries, Navy Department (including for 1923 \$175,000 which, under former practice, would be charged to appro- priation, "Engineering").	139,390.00	116,390.00	290,390.00	+151,000.00	+174,000.00
Do.....	Engineering (including supplemental estimate for 1923).	20,500,000.00	18,300,000.00	12,100,000.00	-8,400,000.00	-6,200,000.00
Do.....	Engineering experiment station, Annapolis, Md.	225,000.00	200,000.00	200,000.00	-25,000.00	
	Total, Bureau of Engineering.....	20,864,380.00	18,616,390.00	12,590,390.00	-8,274,000.00	-6,026,000.00
Legislative and naval.	Bureau of Construction and Repair:					
Do.....	Salaries, Navy Department (including for 1923 \$200,000 which, under former practice, would be charged to appro- priation, "Construction and Repair").	139,830.00	117,460.00	316,460.00	+176,630.00	+198,000.00
Do.....	Construction and repair of vessels.	22,500,000.00	20,000,000.00	14,200,000.00	-8,300,000.00	-5,800,000.00
	Total, Bureau of Construction and Repair.....	22,639,830.00	20,117,460.00	14,516,460.00	-8,123,370.00	-5,601,000.00
Legislative and naval.	Bureau of Ordnance:					
Do.....	Salaries, Navy Department (including for 1923 \$65,000, which under former practice, would be charged to appropriation "Ordnance and Ordnance stores").	71,830.00	69,230.00	133,230.00	+61,400.00	+64,000.00
Do.....	Ordnance and Ordnance stores.	14,200,000.00	13,310,000.00	9,667,000.00	-4,533,000.00	-3,643,000.00
Do.....	Experiments.	250,000.00	225,000.00	201,000.00	-45,000.00	-20,000.00
Do.....	Contingent.	20,000.00	18,000.00	18,000.00	-2,000.00	
	Total, Bureau of Ordnance.....	14,541,830.00	13,622,230.00	10,023,230.00	-4,518,600.00	-3,599,000.00

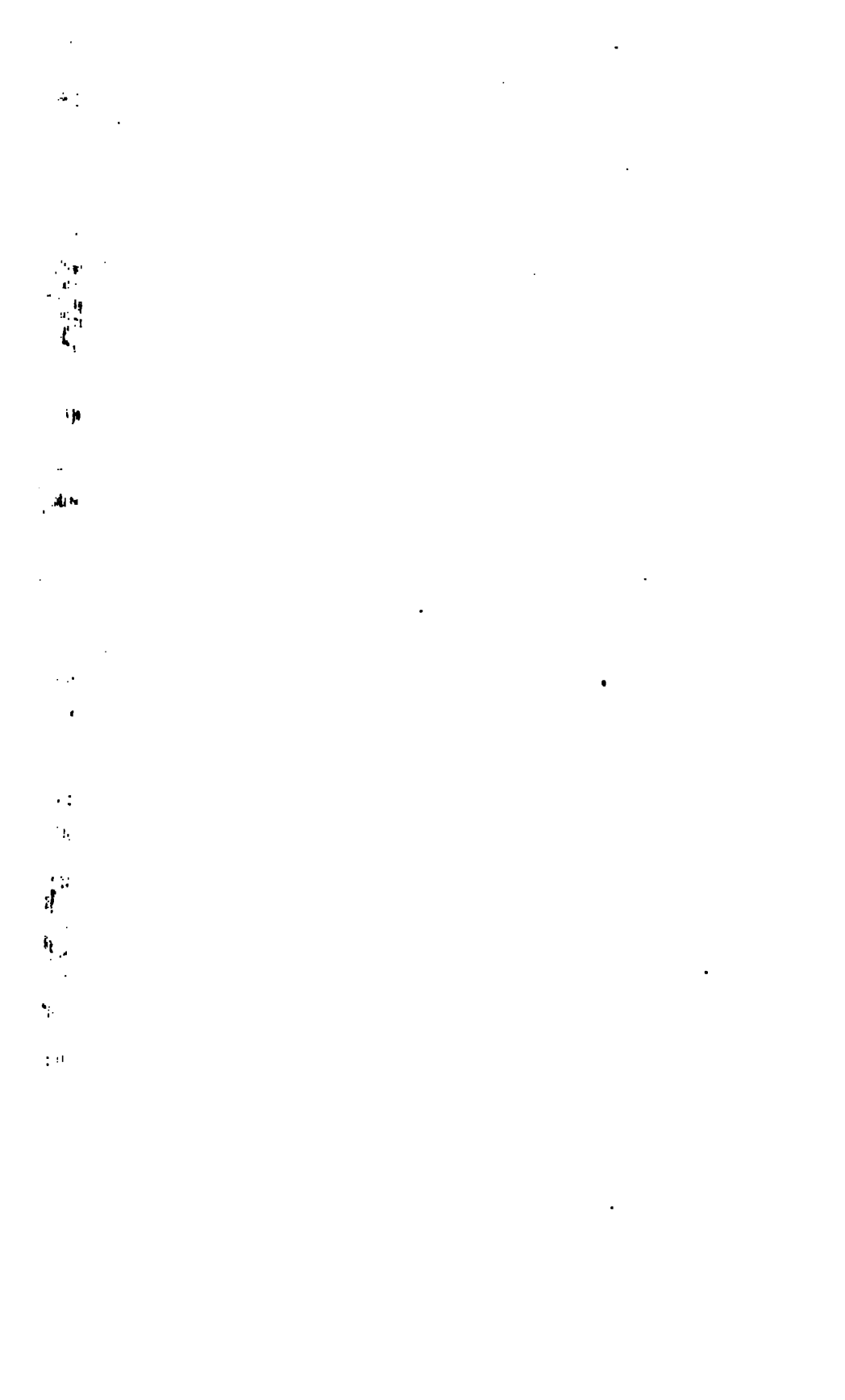
A comparative statement of the amounts appropriated for 1922, the estimates for 1923, and the amounts recommended in the accompanying bill for 1923—
(Continued.)

Bill in which 1922 appropriation was carried.	Object.	Appropriation for 1922 in regular annual, deficiency, and special acts.	Estimates for 1923, regular annual and supplemental.	Amount recommended in bill for 1923.	Increase (+) or decrease (—) bill compared with 1922 appropriation.	Increase (+) or decrease (—) bill compared with 1923 estimates.
RECAPITULATION.						
	Office of the Secretary.....	\$4,544,490.00	\$4,392,250.00	\$4,106,670.00	-\$437,820.00	-\$235,850.00
	Office of the Solicitor.....	42,990.00	42,910.00	42,910.00		
	Office of Naval Records and Library.....	41,000.00	43,340.00	43,500.00	+ 2,500.00	
	Office of Judge Advocate General.....	31,810.00	35,810.00	35,810.00	+ 1,000.00	
	Office of Chief of Naval Operations.....	65,650.00	60,570.00	61,170.00	+ 4,480.00	
	Office of Director of Naval Communications.....	150,000.00	134,300.00	134,300.00	- 15,700.00	+ 600.00
	Office of Naval Intelligence.....	31,500.00	31,000.00	30,080.00	- 1,420.00	- 950.00
	Bureau of Navigation (including Hydrographic Office and Naval Observatory).....	7,953,345.00	9,789,110.00	7,295,197.00	- 688,148.00	- 2,492,915.00
	Bureau of Engineering.....	20,964,390.00	18,016,390.00	12,590,390.00	- 8,274,000.00	- 6,029,000.00
	Bureau of Construction and Repair.....	22,639,830.00	20,117,460.00	14,516,460.00	- 8,123,370.00	- 5,601,000.00
	Bureau of Ordnance.....	14,541,830.00	13,022,230.00	10,023,230.00	- 4,518,600.00	- 3,596,000.00
	Bureau of Supplies and Accounts.....	191,592,655.50	204,138,460.00	137,229,244.00	- 53,363,407.50	- 70,409,212.00
	Bureau of Medicine and Surgery.....	3,594,150.00	2,962,150.00	3,046,150.00	- 538,000.00	+ 64,000.00
	Bureau of Yards and Docks.....	7,723,600.00	6,567,150.00	5,961,350.00	- 1,859,310.00	- 1,083,100.00
	Public Works.....	7,032,600.00	7,794,000.00	8,120,000.00	+ 3,087,400.00	+ 4,031,000.00
	Bureau of Aeronautics.....	13,413,431.00	17,069,000.00	7,999,660.00	- 5,426,871.00	- 4,631,000.00
	Naval Academy.....	2,273,845.88	2,493,125.88	2,104,461.00	- 189,364.88	- 9,099,080.00
	Marine Corps.....	27,703,341.90	26,123,356.20	21,993,622.00	- 2,716,816.90	- 3,129,814.20
	Increase of the Navy.....	90,000,000.00	85,000,000.00		- 90,000,000.00	- 95,000,000.00
	Total, regular annual appropriations, including salaries and expenses, Navy Department.....	413,238,946.23	428,046,366.13	233,224,004.00	- 180,015,941.23	- 192,262,297.13

NT AND INDEFINITE APPROPRIATIONS, NAVY DEPARTMENT.

Object.	Estimated expenditures, 1922.	Estimated expenditures, 1923.	Increase (+), decrease (-).
naval home, Philadelphia, Pa.....	\$157,646.00	\$158,622.00	+\$976.00
forfeitures.....	1,000,000.00	500,000.00	-500,000.00
profits, Navy.....	790,000.00	400,000.00	-390,000.00
rial (proceeds of sales, Navy).....	75,000.00	75,000.00	.....
all stores fund.....	7,500,000.00	.....	-7,500,000.00
y, deposit fund.....	135,000.00	100,000.00	-35,000.00
idefinite appropriations.....	50.00	50.00	.....
fund.....	3,500,000.00	2,000,000.00	-1,500,000.00
ine Corps, deposit fund.....	50,000.00	200,000.00	+150,000.00
ermanent and indefinite appropriations...	13,197,696.00	3,433,672.00	-9,764,024.00

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 3. Methodology
 4. Results
 5. Conclusion
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 100. Editorial Office



SWANSON. What was it when it was based on 96,000 men? at Secretary ROOSEVELT. It was \$7,142,000.

SWANSON. The amount you will require will be largely on the number of recruits you have, will it not? Where do you reenlist you do not have the expense for transportation.

DENBY. There will be very heavy recruiting made necessary by expiration of enlistments.

SWANSON. To what extent are there reenlistments?

DENBY. Only to an extent that does not indicate that we are able to count upon a very large percentage of reenlistment that really would not affect the problem of transportation-recruiting, anyway.

SWANSON. Can you tell me how much of that would be for transportation and how much would be for advertising and sending officers out to conduct recruiting operations?

DENBY. We have all that data, but I did not bring it this morning, because I thought you would go into the details of these items later, and I knew there would not be time for me to make the most superficial presentation of the bill this morning. So I have not with me the figures, nor the admirals or officers of the department who have these figures. The Bureau of Navigation has them. Of course, they are in the Budget, and are in the hearings before the House, but I have not got them with me. I can not tell you how much is for recruiting and how much is for transportation.

SWANSON. Do you think there will be any difficulty in increasing it to 1,000 men?

DENBY. No; I do not think there will be, but there is a high turnover going on in the Navy, and this year it will be particularly heavy.

SWANSON. On account of short enlistments?

DENBY. Short enlistments which expire; and business is slow, and we can not anticipate that we will not have considerable difficulty in recruiting. We do not anticipate one way or the other.

SWANSON. We simply estimate as best we can what the cost will be, and we do not detail it this morning.

PAGE. On that single item you would increase the House appropriation how much?

DENBY. We would increase it by \$1,848,225.

ENGINEERING.

This item is engineering, which in the bill as it passed the House was \$12,100,000. The amount recommended by the department is \$13,948,225, which if allowed will require an increase of \$1,848,225. In engineering, of course, there is very little difference whether we have 80 men or 86,000 men in the Navy. Our engineering costs are substantially the same, except for this, that if we had a small navy we would of necessity lay up a number of ships, and our repair costs would be less. That is the only difference. When we put them in commission and cruising or in operation, no matter how many men they carry, the matériel will require attention, and it will be less expensive with a full complement or an approxi-

DEPARTMENT APPROPRIATION BILL, 1923

HEARINGS

BEFORE THE

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE

SIXTY-SEVENTH CONGRESS

SECOND SESSION

ON

H. R. 11228

FOR MAKING APPROPRIATIONS FOR THE NAVY DEPARTMENT
AND THE NAVAL SERVICE FOR THE FISCAL YEAR
ENDING JUNE 30, 1923, AND FOR
OTHER PURPOSES

Printed for the use of the Committee on Appropriations



WASHINGTON
GOVERNMENT PRINTING OFFICE

1922

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5. 5. 5.

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iliaries, oilers; 2 auxiliaries, ammunition ships;
ships; 3 auxiliaries, transports; 2 auxiliaries,
ixiliaries, fleet tugs; 19 auxiliaries, mine sweep-
ni-cellaneous; and 2 fish-commission vessels. I
of them here, all with the complement of men
en there is the flag complement and also the fleet

as follows

be in commission during fiscal year 1923 based on enlisted
force of 86,000 men.

	Allowance for 1922 and 1923.
-----	21, 158
-----	3, 325
ne -----	1, 257
line -----	1, 452
nd line -----	339
ne -----	619
e (90 per cent complements) -----	10, 506
-----	594
-----	2, 453
line -----	126
its -----	787
-----	545
tenders -----	2, 759
e tenders -----	1, 882
nder -----	286
-----	430
ps -----	645
-----	492
-----	932
ion ships -----	354
ps -----	633
s -----	833
ships -----	709
-----	340
eeper -----	906
eons -----	580
sels -----	125
-----	1, 111
-----	1, 100
-----	57, 268
tenders -----	2, 003
-----	59, 271

Estimated shore activities.

training, trade schools, sick, prisoners, and general	26, 729
-----	-----
afloat -----	86, 000

R. E. COONTZ,
Chief of Naval Operations.

you mean by two Fish Commission
for the Fish Commission.

Ordinance and Ordnance Stores.....	2,000,000.00	10
Maintenance, Supplies and Accounts.....	7,069,250.00	7
Freight.....	4,000,000.00	5
Fuel and Transportation.....	16,000,000.00	19
Maintenance, Yards and Docks.....	5,500,000.00	6
Aviation material and technical force (employees in "the Bureau of Aeronautics" not included).....	7,931,950.00	18
Provision- U. S. Marine Corps.....	3,480,947.00	4
Total.....		

I shall be most happy, either in person or by letter, to
necessity of the increases noted above.

Sincerely yours,

CHAIRMAN, COMMITTEE ON APPROPRIATIONS,

United States Senate, Washington, D. C.

I may say, outside the letter, that there are a
personnel items which also should be corrected, fo
dict of the Navy in the year to come.

tor SWANSON. What was it when it was based on 96,000 men? Assistant Secretary ROOSEVELT. It was \$7,142,000.

or SWANSON. The amount you will require will be largely dependent on the number of recruits you have, will it not? Where do you reenlist you do not have the expense for transportation. Secretary DENBY. There will be very heavy recruiting made necessary by the expiration of enlistments.

or SWANSON. To what extent are there reenlistments? Secretary DENBY. Only to an extent that does not indicate that I will be able to count upon a very large percentage of reenlistment; but that really would not affect the problem of transportation and recruiting, anyway.

tor SWANSON. Can you tell me how much of that would be for transportation and how much would be for advertising and sending officers out to conduct recruiting operations?

Secretary DENBY. We have all that data, but I did not bring it this morning, because I thought you would go into the details of these items later, and I knew there would not be time for me more than make the most superficial presentation of the bill this morning. So I have not with me the figures, nor the admirals or officers of the department who have these figures. The Bureau of Navigation has them. Of course, they are in the Budget, they are in the hearings before the House, but I have not got with me. I can not tell you how much is for recruiting and how much is for transportation.

ator SWANSON. Do you think there will be any difficulty in getting 86,000 men?

Secretary DENBY. No; I do not think there will be, but there is a great turnover going on in the Navy, and this year it will be especially heavy.

ator SWANSON. On account of short enlistments?

Secretary DENBY. Short enlistments which expire; and business picking up, and we can not anticipate that we will not have considerable difficulty in recruiting. We do not anticipate one way or the other. We simply estimate as best we can what the cost will be, can not detail it this morning.

ator PAGE. On that single item you would increase the House appropriation how much?

Secretary DENBY. We would increase it by \$1,848,225.

ENGINEERING.

The next item is engineering, which in the bill as it passed the House is \$12,100,000. The amount recommended by the department is \$881,000, which if allowed will require an increase of \$4,871,000. In engineering, of course, there is very little difference whether we have 87,000 men or 86,000 men in the Navy. Our engineering costs will be substantially the same, except for this, that if we had a larger Navy we would of necessity lay up a number of ships, and therefore our repair costs would be less. That is the only difference. To keep them in commission and cruising or in operation, no matter how many men they carry, the matériel will require attention, and it will be less expensive with a full complement or an approxi-

mately full complement than with a smaller complement. It is quite obvious, of course, that if you do not have enough material care of your ships, the expense of keeping the matériel in shape will be greater.

Senator SWANSON. This money is spent for repairing the machinery of the Navy?

Secretary DENBY. Yes.

Senator SWANSON. And the House simply made a scale percentage as to what the repair expenses would be?

Secretary DENBY. Yes. And, Mr. Chairman, may I interpose here one thought that I hope the committee will keep in mind through its consideration of this bill? That is this: The committee on appropriations of the House of Representatives did not to present figures for a purely hypothetical Navy of 65,000 men. We did so, of course, on the suggestion or request of the committee. Thereafter they interrogated the chiefs of bureaus and the chiefs of the department on the basis of that hypothetical Navy of 65,000 men. I know you will keep that fact in mind. I only want to emphasize again that here and there you will find an answer from an official stating that we require such and such an amount. What he is talking about is probably for the hypothetical Navy. Our requirements will be based on the Navy of 86,000 and not on a hypothetical Navy of 65,000 or 67,000, on which we were questioned so closely in the House appropriations subcommittee.

Senator HALE. All of your figures are based on an estimated fleet as provided in the treaty, are they not?

Secretary DENBY. Yes; and the minimum.

LIST OF SHIPS TO BE IN COMMISSION UNDER NAVY OF 86,000 MEN

Senator SWANSON. On the estimate of a Navy of 86,000 men, what was about the Navy which was authorized in 1916—87,000 men? Do you get that Navy well equipped, have you a list of the ships and a program based on a Navy of 86,000 men?

Secretary DENBY. Do you mean as to the personnel?

Senator HALE. Yes; the personnel and the ships.

Secretary DENBY. I have not the operating plan for the Navy for the year. Of course, we can not make that up until we know.

Senator HALE. You have a suggested plan based on a Navy of 86,000 men and the battleships and other ships that will be in commission?

Secretary DENBY. I have the ships here that will be in commission—18 battleships, 5 cruisers, 3 light cruisers first line, 2 light cruisers second line, 1 aircraft carrier, 2 mine layers, 103 destroyers, 6 light mine layers, and so on.

Senator POINDEXTER. Give us some of the auxiliaries.

Secretary DENBY. Three fleet submarines, first line; 9 patrol vessels, gunboats. Those are mainly, or a large part of them, that are used in the Yangtze River, in Chinese waters.

Senator POINDEXTER. How many gunboats?

Secretary DENBY. We have 9 altogether; then there are 6 patrol vessels, yachts; 6 auxiliaries, destroyer tenders; 1 auxiliary, tender; 1 auxiliary, repair ship; 3 auxiliaries, store ships; 3

9 auxiliaries, oilers; 2 auxiliaries, ammunition ships; cargo ships; 3 auxiliaries, transports; 2 auxiliaries, ; 8 auxiliaries, fleet tugs; 19 auxiliaries, mine sweep-
ries, miscellaneous; and 2 fish-commission vessels. I
ent of them here, all with the complement of men
. Then there is the flag complement and also the fleet

ent is as follows

*vessels to be in commission during fiscal year 1923 based on enlisted
force of 86,000 men.*

	Allowance for 1922 and 1923.
1st line	21, 158
2d line	3, 325
first line	1, 257
second line	1, 452
3d. second line	330
4th line	619
first line (90 per cent complements)	10, 506
5th line	594
6th line	2, 453
7th line	126
gunboats	787
yachts	545
destroyer tenders	2, 759
battleship tenders	1, 882
craft tender	286
air ship	430
ore ships	645
miners	492
ers	932
ammunition ships	354
argo ships	683
ansports	833
spital ships	709
et tugs	340
ine sweepers	906
iscellaneous	580
ion vessels	125
t	1, 111
.....	1, 100
.....	57, 268
marine tenders	2, 003
al	59, 271

Estimated shore activities.

force, training, trade schools, sick, prisoners, and general shore)	26, 729
ore and afloat	86, 000

R. E. COONTZ,
Chief of Naval Operations.

MENT, April 29, 1922.

NDEXTER. What do you mean by two Fish Commission

BENBY. We operate a vessel for the Fish Commission.
ect her movements.

Senator POINDEXTER. You mean you furnish the crew?

Secretary DENBY. Yes. We do not direct her movements.

Senator POINDEXTER. Is it under the command of a naval officer under the command of another officer?

Secretary DENBY. As to the operation of the vessel it is under the command of an officer of the Navy. As to destinations it is under the command of the Department of Commerce.

Senator SWANSON. Have you also a list of the ships that are in service, in half commission or not full commission?

Secretary DENBY. We do not anticipate any half commission vessels. We do not anticipate full complements, but there are no half commissions.

Senator SWANSON. Have you the number of men for each ship?

Secretary DENBY. No. For the 18 battleships, 21,158 men, averaging 1,190 men per ship.

Senator NEWBERRY. That detail is in the House hearing.

Senator HALE. There will be a number of ships in ordinary, there not?

Secretary DENBY. No; there will not be any in ordinary. There will be some absolutely decommissioned. There will be 150 and 200 destroyers utterly out of commission.

CARE OF VESSELS OUT OF COMMISSION.

Senator SWANSON. What arrangement do you make to take care of these ships?

Secretary DENBY. They are "laid up" with white lead and protective devices for the machinery.

Senator PAGE. I have been studying the report. In that report make estimates for 1923. Those are your estimates, but you say were made upon the supposition that we had a smaller Navy than provided for. Is that correct?

Secretary DENBY. No, sir; no estimates were made by the department. It is the hearings I am talking about. In the hearings before the subcommittee of the House Appropriations Committee were made to give what we would do first with the Navy divided as they want it divided, 50,000 men afloat and 15,000 ashore. Then we added that other hearings showing what the Navy would do with a personnel divided as the Navy thought best.

Senator PAGE. But your estimates give a total of \$425,000,000. Those estimates will cover what you want at this time, will they?

Secretary DENBY. They will cover more than we want. We have come down to \$350,000,000. We estimated before the House legislative committee for \$350,000,000 on a Navy of 96,000 men.

Senator NEWBERRY. The Secretary was asked a question by Senator Swanson, "On what basis was your budget submitted for recruiting?" And the answer was on the basis of 96,000 men.

Secretary DENBY. Not the one here—86,000 men?

Senator NEWBERRY. The only budget we have is that which is submitted by the Budget Director.

Secretary DENBY. I know, but that is all changed here.

Senator NEWBERRY. We have here what was estimated, \$6,500,000, estimated for recruiting; allowed by the Budget \$6,000,000, and

as the Budget was concerned that was on the basis of 96,000 men, is it not?

Secretary DENBY. I do not remember what that basis was there.

Senator SWANSON. The amount of money you will need for that I depend to a large extent on the number of men reenlisting, and the expenses you incur for advertising and recruiting. I have an idea that for a Navy of 86,000 men, with the number of men now serving in the Navy for the last three or four years, you will not have much difficulty in filling up the required number. I have an idea you can economize on recruiting and transportation.

Assistant Secretary ROOSEVELT. The recruiting is not the big item expense. There is a popular fallacy that the old enlisted men would come back into the Navy. Now, they do not. As a matter of fact they have to go out and get these old men the same as anybody else. You can get more of them to reenlist when times are not very good in the country, but you have got to go after them just the same. They do not stand around waiting to reenlist.

Senator SWANSON. They usually go off for thirty days or so and then come back, do they not?

Assistant Secretary ROOSEVELT. We are talking about economizing on transportation. Now, we have got the transportation expense just the same. You have got to go out and get them and bring them back from where they are.

Senator SWANSON. This item of transportation is one on which you have been allowed to make a deficit, and I think you people are making a mistake in not expecting to have some deficit, for the simple reason that when you do have a deficit you are generally more economical. Then the department does not spend anything except what is absolutely compelled to expend. When an officer wants to be transferred to a certain station, if you have no money to do it with they do not transfer him. I think you are making a mistake in having always an abundance of money. We have allowed you by law to make a deficit on certain things that you simply had to have, such as transportation, recruiting, maintenance—

FUEL.

Secretary DENBY. And fuel.

Senator SWANSON. And, consequently, where you know you will have a deficit I think you will spend only the money that is absolutely necessary. If you are not going to have any deficit it simply means that you have got to guess in advance what you will spend, and if you have a surplus you will generally spend it. I think it is a mistake to say that you are not going to have a deficit under any circumstances, because it produces a certain amount of extravagance; we appropriate all the money. If you can not incur a deficit then you might have your Navy tied up in such a way that you could not meet an emergency. Take the question of coal, for instance. The amount of money required is dependent largely on the price of coal and on the extent to which the ships maneuver. You can not tell what coal will sell for in another year. We have usually supplied what we thought was absolutely necessary, and then my experience

has taught me that when the department makes a deficit, it has got to go to the trouble of coming to the Committee of Appropriations for money they are more economical than they are. I have a full appropriation.

Secretary DENBY. The President has been very anxious that there shall be no deficit this year or in future, and we propose to avoid the necessity for a deficit as far as possible.

Senator SWANSON. How can we tell about coal?

Secretary DENBY. It is a very difficult problem. There is a question about that. It is impossible to forecast accurately the consumption of coal, but we endeavor to do it as closely as we can. We have an operating plan indicating how many miles the battleships and other vessels move during the year and basing the coal consumption upon that; but every few weeks sometimes—and quite often—event, we have extra demands upon the Navy to send vessels there, and everywhere, which demands we can not anticipate in advance.

Senator POINDEXTER. I noticed this morning a request for a vessel to China.

Secretary DENBY. So far we have had no request for ships to China.

Senator SWANSON. How long do you make your contracts for coal?

Secretary DENBY. Every six months.

Senator SWANSON. This bill becomes operative on the first of July. Then you make a contract for coal for six months, and at the end of that six months you make another contract for six months as I understand it. Now it is a mere conjecture what the price of coal will be on the first of next July. The Navy wants to be economical, and still it does not want to be extravagant; and if you say that you are going to have no deficit, and are not going to have one cent of a deficit, even in case of emergency, Congress is compelled for fear of an emergency to appropriate an amount of money which can be used extravagantly.

Secretary DENBY. I do not think any item in this bill is regarded as in that category; that is, it can not be regarded as a margin for extravagance. I do not think there is any such thing in this bill.

Senator HALE. For the purpose of keeping the record straight, I suggest that the Secretary be given a chance to make his statement now about various appropriations that he is going to ask for, so that we question him afterwards as to the details, because he gets off on different tangents.

Senator PAGE. I should like to follow the line desired by the Secretary as far as possible.

Secretary DENBY. I had no information as to what was this morning beyond the fact that you were going to begin the hearings. I have not come prepared to go into the details of the appropriations this morning.

Senator PAGE. When do you wish to take up these details?

Secretary DENBY. Whenever the committee is ready I am very glad to, and we are ready at the department immediately.

ly wish it understood that we have not with us this morning specific figures and other details that are absolutely essential in order that there may be a clear presentation. I would not like to depend on them from memory.

Senator PAGE. Senator Hale suggests that you proceed generally give us your views, which will fix our minds on what we are going to want to question you about later.

Senator HALE. You did not finish a statement of the items in your letter. The last one you spoke of was engineering.

CONSTRUCTION AND REPAIR OF VESSELS.

Secretary DENBY. The next item is construction and repair of vessels, \$14,200,000 being allowed in the House bill. The amount recommended by the department is \$18,441,000. The increase asked is \$4,241,000.

ORDNANCE AND ORDNANCE STORES.

For ordnance and ordnance stores the House bill allowed \$9,500,000. The amount recommended by the department is \$10,700,000, so that the increase asked is \$1,200,000.

MAINTENANCE FOR SUPPLIES AND ACCOUNTS.

For maintenance, Supplies and Accounts, the House bill allowed \$69,260. The amount recommended is \$7,654,260, so that the increase asked for is \$5,855,000.

FREIGHT.

For freight the amount allowed in the House bill is \$4,000,000. The amount asked for is \$5,000,000, so that the increase proposed is \$1,000,000.

FUEL AND TRANSPORTATION.

For fuel and transportation the House bill allowed \$16,000,000. The amount recommended by the department is \$19,894,662. The increase asked for is \$3,894,662. We hope to bring the fuel appropriation up to \$22,000,000.

MAINTENANCE OF YARDS AND DOCKS.

For maintenance of yards and docks the House bill allowed \$100,000. The amount recommended by the department is \$150,000. The increase asked for is \$1,250,000.

AVIATION, MATÉRIEL, TECHNICAL FORCE.

For aviation, matériel, and technical force ("employees in the Department of Aeronautics" not included) the House bill allowed \$31,950. The amount recommended by the department was \$99,999.40. The increase asked for is \$9,068,049.40.

PROVISIONS, UNITED STATES MARINE CORPS.

For provisions, United States Marine Corps, the House allowed \$3,380,947. The amount recommended by the department is \$3,679,121. The increase asked for is \$298,174.

That is very easily explainable and I will cover it now and get it out of the way. The House committee finally decided 45 cents per day per man as the ration, but they forgot to add it to the Marine Corps. They had already reduced the ration to 40 cents. Then they increased it to 45 cents but left out the Marine Corps.

Senator PAGE. In round numbers what do you propose to add to the bill?

Secretary DENBY. A total of \$28,166,110.40. That does not include new projects. That is for the maintenance of the Navy.

Another matter, Mr. Chairman, that I have prepared is the closing letter in which I state that there are certain clerical errors in H. R. 11228 and that there are furthermore additional items set out in the estimates which have been omitted from the House bill. The letter is as follows:

THE SECRETARY OF THE NAVY,
Washington, May 22.

MY DEAR MR. CHAIRMAN, In H. R. 11228, which you have before for consideration at this moment, there are certain clerical errors which I desire your attention to. They are enumerated in Annex A.

There are, furthermore, additional items submitted in the estimates which have been omitted by the House bill. These range from appropriations contingent on the commissioning of all the midshipmen of the graduate class at Annapolis to extensions and improvements for our inadequate facilities on the Pacific coast. I believe these items merit your most careful consideration; therefore, that you hold hearings on all of them. A list of these items is submitted in Annex B.

There are certain amendments in the language of the bill which I believe should be made. These items are in addition to those mentioned previously, and I give you a list of them in Annex C.

I stand ready to furnish you the full facts on each and all of the items mentioned.

Sincerely yours,

EDWIN DENBY.

CHAIRMAN, COMMITTEE ON APPROPRIATIONS,
United States Senate, Washington, D. C.

ANNEX A (CLERICAL ERRORS).

Page 51, line 8, change the total "\$481,400," which is in error for "\$556,400."

Page 51, line 17, change the figures "\$826,73," which are in error for "\$826,78."

Page 52, line 13, change the total "\$926,261," which is in error for "\$1,001,261."

Page 54, line 8, change the total "\$2,154,461," which is in error for "\$2,229,461."

Continued, Marine Corps: Page 59, line 23, strike out the column headed "w. s. 162."

The further items for consideration in connection with the bill submitted by me and Annex C are as follows:

—Further items for consideration in connection with H. R. 11228.

Item.	H. R. 11228.	Recom- mended.	Increase.
ises, Navy Department.....	\$70,000	\$85,000	\$15,000
ation, Great Lakes.....	160,000	200,000	40,000
orce.....	50,000	200,000	150,000
ceiving barracks.....		100,000	100,000
ice, technical force.....		100,000	100,000
to provide for commissioning the entire first class			
	107,503,239	108,623,366	1,120,127
fare Island, Calif., dikes, dredging, etc.....	750,000	1,500,000	750,000
uget Sound, Wash., roads and sidewalks.....		25,000	25,000
ension.....		500,000	500,000
ncluding purchase of land.....		85,000	85,000
, Pearl Harbor, Hawaii—			
to machine shop.....		200,000	200,000
al storage facilities.....		200,000	200,000
pply extension.....		153,000	153,000
, Tutuila, Samoa, rebuilding wharf.....		120,000	12,000
, Cavite, Philippines—			
o wharf.....		48,000	48,000
for floating derrick.....		45,000	45,000
ant modification.....		55,000	55,000
nition depot, Pearl Harbor, Hawaii, additional			
ilities.....		80,000	80,000
ng base, Hampton Roads, Va., repairs to north			
		200,000	200,000
cks, San Diego, Calif., including purchase of land.	482,000	500,000	18,000
se, San Pedro, Calif., development of, including			
land.....		100,000	100,000
ase, Pearl Harbor, Hawaii, grading, railway,			
y development.....		25,000	25,000
ie, San Diego, Calif.—			
r warheads.....		60,000	60,000
r torpedoes.....		140,000	140,000
tion, Sand Point, Wash., toward the develop-			
er-than-air station.....		100,000	100,000
lameda, Calif., toward the development of fleet			
		100,000	100,000
			4,421,127

ANNEX C.

AMENDMENTS FOR CONSIDERATION IN CONNECTION WITH H. R. 11228.

PRINTING AND BINDING.

18, add: "That portion of the appropriation for the Government for the fiscal year 1922 which may be necessary to execute printing for the Navy Department under orders placed with the Public for the fiscal year 1922, within the total allotment to the Navy Department that fiscal year, is hereby reappropriated and made available for the fiscal year 1923 for that purpose."

lines 25 and 26, and page 30, lines 1, 2, 3, strike out the words: "That portion of this appropriation or any other appropriation contained in the bill shall be available for expenditure at the naval proving ground, Dahlgren, Virginia, so much as may be necessary to maintain the station on a permanent basis."

lines 8 to 20, strike out the entire paragraph beginning with the word "and" and including the word "midshipmen," as follows: "Not to exceed 100 graduates of the Naval Academy of the class of 1922 to be selected by the academic board of the Naval Academy for equal consideration to the scholastic standing and adaptability for service of each graduate: *Provided*, That each graduate of the Naval Academy of the class of 1922 who is not commissioned as an ensign in the Navy shall be paid mileage at the rate of 5 cents per mile from the Naval Academy to the station and a sum equal to three months' pay of a midshipman, such pay-

ments to be made from the respective appropriations in this act for the transportation and pay of midshipmen."

Page 34, lines 6 to 9, after the word "discharges," change the colon; and in lines 6 to 9 strike out the words "so that the average of enlisted men, including 6,000 apprentice seamen, shall not exceed 80,000 in the fiscal year 1923."

On page 48, after line 15, insert: "The Secretary of the Navy is authorized to accept from the city of Alameda, California, free from encumbrances and without cost to the United States Government in excess of \$1, a certain tract of land on San Francisco Bay, containing five thousand three hundred 25 acres, more or less, for use as a site for a naval base, being the land in a certain deed made the 5th day of February, 1920, by and between the city of Alameda and the United States of America; also to accept free from encumbrances and without cost to the United States Government certain land adjoining said tract, being the land lying between the section boundary line of said tract and the pierhead line in front thereof."

On page 48, after line 15, insert: "The Secretary of the Navy is authorized to accept from the city of Los Angeles, California, free from encumbrances and without cost to the United States Government in excess of \$1, a certain tract of land in the harbor of Los Angeles, California, containing two hundred twenty-five acres, more or less, for use as a site for a naval submarine base."

On page 48, after line 15, insert: "The Secretary of the Navy is authorized to accept from King County, State of Washington, free from encumbrances and without cost to the United States Government in excess of \$1, a certain tract of land containing 400 acres, more or less, located at Sand Point, Washington, for use as a site for a naval aviation base."

NAVAL ACADEMY.

Page 50, lines 17 to 22, strike out the words "No part of any sum of money appropriated shall be expended in the pay or allowances of any civilian officer of the Navy detailed for duty as professor or instructor at the United States Naval Academy to perform the duties which were performed by professors or instructors on January 1, 1922."

INCREASE OF THE NAVY.

Page 62, line 8, after the word "date," insert "including the United States ship *Maryland*."

Page 62, line 19, after the semicolon following the word "Department," insert "for the procurement of gyro compass equipments for destroyers to be supplied."

Page 62, line 19, after the word "completion" insert the words: "equipment, and ammunition, and"

Page 62, line 20, after the second comma following the figures "302," insert the word "including," and after the word "hundred" the words "destroyer type," so as to make the phrase read "including not to exceed one hundred of the destroyer type."

Page 62, lines 21 and 22, strike out the words, "on the United States *Maryland* and."

Senator HALL. How much do they figure up?

Secretary DENBY. They figure up \$4,421,127.

Senator HALL. And are not included in the previous total \$28,000,000?

Secretary DENBY. They are not included in that \$28,000,000.

Senator PAGE. You will explain the necessity for each of these items?

Secretary DENBY. Yes; we will make an oral statement or submit a written statement, just as you prefer, giving a complete explanation of every item.

Senator PAGE. Is that total of \$32,000,000 likely to cover all the differences between the House and the Senate?

Secretary DENBY. It covers all the differences between the bill that House passed and the things that the department was urging at the time excepting any new construction. That is a matter to be decided.

Senator GLASS. Did the House review the figures at all?

Secretary DENBY. The House only reviewed the figures for maintenance and personnel, and the provision for pay of the Navy. They reduced the personnel from 67,000 to 86,000 and then they changed the amount for the pay of the Navy.

Senator SWANSON. How would this suit you, Mr. Secretary, to get done systematically? Here is the way we used to do: Supervisor and the Assistant Secretary and the Chief of Operations were one day with the Pay Department and tell us all about it and put it up and conclude everything in regard to that. The next day come with your Assistant and the Chief of the Bureau of Navigation and take up personnel and recruiting systematically, and so put that up. Then come to the engineering department, then aviation and then construction.

Secretary DENBY. Yes; and all the rest of the bureaus.

Senator SWANSON. Then you will get at it systematically. You are here with them, and the next day we can take up yards and so take them up in the order in which they appear in the bill. Each subject can be completed by itself. As far as I am personally concerned I would be very glad to have two or three gentlemen come with the chiefs of these bureaus, and take up these different subjects systematically. Would that suit you?

Secretary DENBY. Yes.

Senator SWANSON. That is the course we usually pursued and we decided of one subject each day.

Secretary DENBY. You might dispose of two a day.

Senator SWANSON. Yes; but in that way we have it systematically in the hearings: when we take up the subject of yards and docks we put it all together in one place in the hearings. If that is agreeable to the three gentlemen I think it will be the better course to pursue.

Secretary DENBY. That is perfectly agreeable to me if the committee decides that it is the proper procedure. The department will be glad to proceed in that way.

Senator PAGE. Has any Senator any suggestion to make with reference to that method of procedure?

Senator POINDEXTER. I think that is a very good suggestion. I

add this, that I think as a general rule it is well to adopt a regular method of having these statements made; and I think it would be a good idea to let the representatives of the department, usually, complete their statements and, when they have completed them, allow any member of the committee in regular turn to ask any questions that he may desire. I think in that way we will make better progress.

Secretary DENBY. Make a general statement first and then be questioned afterwards?

Senator POINDEXTER. Yes.

Senator GLASS. Why not take up the different subjects in the order in which the Secretary presents them in his letter?

Assistant Secretary ROOSEVELT. Why not just take the Secretary's letter as a basis, and notify the Secretary, for instance, that to-mor-

row you will take up the first two items in his letter-
tion and recruiting, and engineering? Then the Secretary
the proper admirals come here with the data.

Senator PAGE. Would you think that would be pr
up the bill as we find it?

Assistant Secretary ROOSEVELT. This gives a summary of
ferences that the Navy Department suggested.

Senator PAGE. My question is whether we should tak
the order in which they are presented in the bill or o

Senator SWANSON. I think you have taken them up
order of the bill.

Assistant Secretary ROOSEVELT. Not quite in the o of

Senator SWANSON. That does not make any diff
one is pay and subsistence.

Senator POINDEXTER. It would take a l t to
bill to find out which comes first and which u s
not make much difference.

Assistant Secretary ROOSEVELT. That will foll

Senator GLASS. There is a basis for the whole

Secretary DENBY. That is what it was hoped y

Senator PAGE. It seems to be agreeable to the
mittee that we meet at 10.30 to-morrow morn

Assistant Secretary ROOSEVELT. The Sec y*
transportation and recruiting and engineeri 1
two items. We might take them up to-morr

Senator PAGE. To-morrow morning.

Secretary DENBY. May I ask the indul
can not come on Cabinet days. To-morrow
retary Roosevelt and Admiral Coontz will be 1 10
not like to miss Cabinet meetings, if it is t n

Senator PAGE. We shall be very glad to e y
can come, but not to interfere with Cabinet 1 u .

RECRUITING AND TRANSPORTATION.

Senator POINDEXTER. Mr. Secretary, when y
into this matter I should like to have you
you are asking so much more for recruiti t
the next fiscal year than you had the present
personnel than you will have next year.

Secretary DENBY. I will tell you in detail
line it is because we have such a tremendous n
going out of the service and who have to be

Senator POINDEXTER. Were there not a gr t
current year?

Secretary DENBY. Next year there will 1

Senator NEWBERRY. The appropriation n t
they spent over \$6,000,000.

Admiral COONTZ. There was a heavy deficiency.
you have passed a deficiency bill, I think, of \$2,500
point.

Senator SWANSON. I am satisfied that the better
is to bring the chiefs here, one bureau at a time.

YARDS AND DOCKS.

Senator HALE. Mr. Secretary, you spoke about some supplementary in addition to the \$28,000,000 in this paper which you have read, you suggested that you would either testify about them or give a written statement.

Secretary DENBY. Yes.

Senator HALE. I would like very much to have a written statement submitted which we can study before we take up these questions, so that we can familiarize ourselves with these different items.

Secretary DENBY. Very well. They are mostly yards and docks.

Senator PAGE. May we understand that the total of \$32,000,000 includes all that we will have under debate or discussion in our contest with the House—that the \$32,000,000 covers everything that is in dispute or that will be disputed between the Senate and the House?

Secretary DENBY. Except the matter of new construction, which is not yet fully determined on.

Senator NEWBERRY. There may be no dispute. We might be in agreement with the House.

Secretary DENBY. After your hearings you may lower or raise some items, but we are giving you the difference between what we recommended and what we got, as well as a statement of new items.

Senator PAGE. There is no difference of opinion in this committee, as far as I can see, about having a good Navy, but there may be a difference in regard to how strict we are in the matter of economy.

Secretary DENBY. Yes.

Senator PAGE. I should like to have you prepared to tell us why we cannot cut out a little, perhaps.

Secretary DENBY. I think we will be able to satisfy you that we are not asked for more than we need; but if we have in any instance, we shall cheerfully acquiesce in the action of the committee if it chooses to reduce the amount. I understand Senator Hale wants yards and docks items specially in detail.

Senator HALE. Yes.

Secretary DENBY. We will submit those in writing, addressed to the chairman of the committee.

Senator HALE. The original Budget estimates will not be of any particular value in this matter now.

Secretary DENBY. I do not think so.

Senator NEWBERRY. They will have a comparative value. For instance, for recruiting a Navy of 96,000 men they asked for \$6,000,000. It is interesting to know why they need the same amount with a Navy of 86,000.

Senator HALE. The original Budget estimate contemplated a Navy of 100,000.

Secretary DENBY. We were basing it then on the supposed Navy of 100,000. We were not given money enough to keep it up to that number and we had to drop to 96,000 men. We are now approximately between 94,000 and 96,000. Now, we come down to 86,000. Now,

while there may be certain changes, and you lower the Navy in certain ways, yet recruiting and transportation may not decrease.

Senator PAGE. We are all agreed that the House and Senate both agree probably on 86,000 men.

Senator POINDEXTER. Why do you say that, Mr. Chairman?

Senator PAGE. From reading the papers on that subject.

Senator HALE. Has the Budget officer been over these estimates that you are making, in any way?

Secretary DENBY. No; he has not.

Memoranda from the Bureau of Yards and Docks re usage items to be proposed as amendments to H. R. 11228, viz:—

Navy Yard, Puget Sound, Wash., rifle range, including purchase of land.....

Marine barracks, San Diego, Calif., to complete the development of the Marine Corps base, including not to exceed \$18,000 for the purchase of land [italic provision only is new].....

Submarine base, San Pedro, Calif., toward the development of a submarine base, including the purchase of land.....

Destroyer base, San Diego, Calif.:.....

Storage for warheads.....

Storage for torpedoes.....

Naval air station, Sand Point, Wash., toward the development of a heavier-than-air station.....

Naval base, Alameda, Calif., toward the development of a fleet base.....

Under "Navy Yard, Puget Sound, Washington," on page 47, line 7, the semicolon, following the figures \$50,000, insert "rifle range, including purchase of land, \$85,000."

The Navy has felt the need for a number of years of improved facilities on the Pacific coast to train its personnel in the use of small arms. The need of a range, such as that at Guantanamo, is exceedingly great and it should be the means to train the personnel of the Pacific Fleet about the lines in the use of small arms. There is no satisfactory range on the West coast. Bremerton is the yard upon which all the capital ships of the fleet are based, and the need of such a range is most pressing. It has been contemplated for a number of years and considerable effort has been made to find a location which would give satisfaction. This is a difficult problem in a country as that found around Puget Sound, particularly as that country has no extensive topographical maps. After many years of search this site was finally selected, only 1½ miles southwest of the torpedo station at Sand Point, which station is only 11 miles north of the navy yard at Puget Sound. In fact, the waters between the Puget Sound Navy Yard and the port reservation make almost a continuous anchorage ground for ships which might desire to train their personnel in the use of small arms while the actual presence at the navy yard is not necessary.

There is a small range at Olalla, about 8 miles south of Port Orchard, which is practically inaccessible during a large portion of the year and, furthermore, is not properly equipped with natural backstops into which the bullets can be done.

The new site is one which has been tried out by renting a small portion of it from time to time and it is found to be satisfactory. The owners of the land have been clearing and developing more and more of it each year for farming purposes; and, unless this site is obtained in the near future, it will soon be beyond reach by reason of its increased value. Authority for purchase is therefore urged at the present time and this approach is recommended.

Estimate included in 1923 Budget. (See Hearings, pp. 772 to 775, line 10.) Under "Marine barracks, San Diego, Calif.," page 48, line 10, after following the word "base," insert "including not to exceed \$18,000 purchase of land"; and strike out the figures "\$482,000" and insert thereof, "\$500,000."

In making the original purchase of land for the Marine Corps base at San Diego, the Navy excluded a small triangular area for which the owners demanded \$100,000.

rice. These parties have now agreed to reduce their figure to an amount is believed to be reasonable. There is also required the purchase of a of way to connect with the Sante Fe Railroad in order that railroad connection may be made to both the marine reservation and the training station, service is now obtained only by reason of the contractors leasing this 'tion. Unless this right of way is purchased the base may at any time

off from connection with a railroad on the outside, and it is strongly mended that it be bought. Legislation should therefore be provided to e it with the remainder of the property acquired. Without this piece d the construction of the base and its operation will be seriously im-

The estimate for this item was included in the 1923 Budget, which was nitted to the Speaker of the House of Representatives by the President. hearings, p. 802.)

page 48, between lines 12 and 13, insert the following item:

marine base, San Pedro, Calif.: Toward the development of a subma- use. including the purchase of land, \$100,000."

is in accordance with the report of the joint congressional committee ated to investigate naval-base sites on the west coast. At present sub- es frequent the harbor of Los Angeles and have to rely upon a small pier for facilities. The proposed site includes 179 acres of tide lands -ctions of the bay and 46 acres of high land. The city of Los Angeles s to donate the entire site, and the deed for the tide lands has actually eposited in escrow with the Secretary of the Navy.

page 48, between lines 15 and 16, insert: "Destroyer base, San Diego, storage for warheads, \$60,000; storage for torpedoes, \$140,000; in all, 00."

se storage buildings are absolutely essential for the storage of torpedoes arheads at that section of the coast, and they are made particularly tant by reason of so many destroyers having been placed out of com- n at San Diego. Storage ashore is highly desirable for munitions of haracter. The estimate for this item was included in the 1923 Budget, was transmitted to the Speaker of the House of Representatives by resident. (House Hearings, p. 807.)

page 48, after line 15, insert the following:

aval Air Station, Sand Point, Wash.: Toward the development of a r-than-air station, \$100,000."

ras the opinion of the joint congressional committee appointed to inves- naval base sites on the Pacific coast that a naval aviation base should ublished in the Puget Sound region, and that Sand Point is the most ble site available for that purpose in this region and that it should be d and acquired.

page 48, after line 15, insert the following: " Naval base, Alameda, Calif.: d the development of a fleet base, \$100,000."

ras the unanimous recommendation of the joint congressional committee ated to investigate naval base sites on San Francisco Bay that a naval base eveloped on San Francisco Bay or its tributary waters. This committee ht out in its report the fact that the Alameda site has excellent advantages or supply, transportation, and communication, and, further, that if such a s developed at Alameda the existing dry docks at Hunters Point will still dable for the Government's use in case of emergency.

page 48, after line 15, insert the following:

ie Secretary of the Navy is authorized to accept from the city of Alameda, free from encumbrances and without cost to the United States Govern- in excess of \$1, a certain tract of land on San Francisco Bay, containing acres, more or less, for use as a site for a naval base, being the land ded in a certain deed made the 5th day of February, 1920, by any between y of Alameda and the United States of America; also to accept free from brances and without cost to the United States Government certain other djoining said tract, being the land lying between the southwesterly ary line of said tract and the pierhead line in front thereof.

ie Secretary of the Navy is authorized to accept from the city of Los s, Calif., free from encumbrances and without cost to the United States nment in excess of \$1, a certain tract of land in the harbor of Los s, Calif., containing 225 acres, more or less, for use as a site for a naval rine base.

ie Secretary of the Navy is authorized to accept from King County, State shington, free from encumbrances and without cost to the United States

Government in excess of \$1, a certain tract of land containing 40 or less, located at Sand Point, on Lake Washington, for use as a station aviation base."

The purpose of the above provisions to enable the Secretary to obtain possession of the land as outlined above, namely, at Anacapa, San Pedro, Calif., and Sand Point, Wash.

Senator HALE. I move that the committee adjourn until 10.30 a. m.

(The motion was agreed to.)

Accordingly, at 11 o'clock and 35 minutes a. m., the committee adjourned until Tuesday, May 2, 1922, at 10.30 a. m.

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

TUESDAY, MAY 2, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

subcommittee met at 10.30 o'clock a. m.
sent: Senators Page (chairman), Poindexter, Hale, Phipps, Erry, Gerry, and Glass. Also Hon. Theodore Roosevelt, Assistant-Secretary of the Navy; Rear Admiral John K. Robison, United States Navy, Engineer in Chief, Bureau of Engineering; and others.

BUREAU OF ENGINEERING.

Assistant Secretary ROOSEVELT. Mr. Chairman, the first matter to which we wish to direct your attention is on page 25 of the bill, line 10, changing of the figures there from "\$12,100,000" to "\$16,000,000."

STATEMENT OF REAR ADMIRAL JOHN K. ROBISON, UNITED STATES NAVY, ENGINEER IN CHIEF, BUREAU OF ENGINEERING, NAVY DEPARTMENT.

Rear Admiral ROBISON. Mr. Chairman, I do not wish to be tedious, but I want to be sure that I make the necessity for the change absolutely plain.

Senator PAGE. We are anxious about that.

Rear Admiral ROBISON. I have a written form of statement, and it will maintain at all the continuity of my statement to be interrupted at me by any member of the committee.

Senator PAGE. The suggestion is made, Admiral, that we hear your statement first without much interruption. That will shorten the procedure. Of course, if anything occurs that we wish to ask, we will feel at liberty to do so.

Rear Admiral ROBISON. I have my statement typed, but I do not intend to adhere strictly to the typed language; I can be interrupted at any time without interfering with the continuation of my statement later, if you wish, sir.

ENGINEERING.

Proceeded under the appropriation "Engineering," which is covered by page 24 and the first 8 lines of page 25 of the bill as it passed the House, \$16,795,000 instead of the \$12,100,000 as it appears in

line 2, page 25, of the bill. For the other items in the bill that pertain to the Bureau of Engineering, such as the appropriation for the Engineering Experiment Station, line 16 on page 25, \$200,000 and Salaries, Navy Department, for which the bill carries \$300,000 plus a total of \$255,000, divided up into \$175,000 and \$80,000 for clerks, draftsmen, and technical employees of the Bureau, I am not asking any change.

Senator PAGE. Let me understand that, now. You will stand yourself entirely to line 2, page 25, and as to the rest you will stand the figures in the House bill?

Admiral ROBISON. Yes, sir.

Senator PAGE. You may proceed.

Admiral ROBISON. The reason why I need \$4,695,000 more than the bill contains as it passed the House, is that with less than \$16,000,000 it is impossible to maintain and operate the Navy that will be in commission next year, either under the list of ships given by the House Appropriations Committee in its report accompanying H. R. 11228, or under the list of ships that has been prepared by the Secretary of the Navy to indicate what vessels he contemplates keeping in commission next year with the personnel that is provided for by the House bill, 86,000.

I have here a blue print to which I should like to invite the attention of the members of the committee. It comprises a list by name of all the vessels of the Navy in their contemplated status for next year as to in or out of commission and it includes a detailed statement of what it will cost as a minimum in engineering only to maintain them. These figures are not absolute, but they are a great deal more than a guess. They are a carefully computed estimate.

In making it I have taken actual costs of the last complete year, 1921, and have applied to them correction for present conditions of labor and material. To accomplish this, I made a decrease in the material costs of 18 per cent, and a decrease in the labor costs of 25 per cent. This is, as nearly as I could obtain it, the difference between actual present conditions and those that obtained in the years 1921. The actual cut in our navy yard wage scale has been about 14 per cent, but there has been an increase in production at the yards that is naturally the result of a decrease in employment and we are getting about 25 per cent more work out of a dollar than we did two years ago. If, next year, material costs go down, the figures that I am giving you are too high. If wages go down, the costs for navy yard work are too high. On the contrary, if there is a rise in prices, these figures will be too low. For present conditions they are correct as nearly as it is possible to get them.

I can do no more, I think, than to state present conditions. These are the costs. Of course, this table of ship costs does not include the cost of the ships we must spend. The blue print includes the actual costs for maintenance and for limited operation next year under the latest operating force plan of the department. It includes those vessels that will be in commission next year, and it includes the care of vessels that will be out of commission, but that remain a part of the Navy. These ship costs are divided up in detail.

You will note, at the head of the blue print, the various classes, C, D, K, P, and B.

COST OF SUPPLIES.

Item C is the cost of supplies that are used aboard ships, such as gaskets in pipe joints, packing in machinery, the boiler and condenser tubes that are replaced now and again, the fire brick for furnaces, nuts and bolts, prices of bar metal, small hand tools, lubricating oils, cleaning gear; the ordinary supplies that are used on a ship.

COST OF REPAIRS.

Item D is the cost of repairs performed by navy yards and to a large extent by ship's forces and repair ships; items such as the overhauling of engines, rebabbiting of bearings, reboring of cylinders, the late retubing of boilers and condensers; in short, restoring defective parts to their original condition.

ALTERATIONS.

Item K means alterations. However, in tabulation of the blue print figures under this heading are restricted to alterations of a particular character; they are not improvements, except in a limited sense. If a design has proved defective in use, and we know the way to correct that defect, instead of restoring the apparatus in the exact form in which it originally was, we make correction to cure the defect in the future. Rather than spend a large sum of money through constant repairs, it is more economical to replace with proper design and a permanent remedy. This is the principal present source of expense under Title K. The Title K estimates include some changes required by military necessity to keep pace with developments, such as changes in fire control, installations of improved radio apparatus and sound detectors.

Before the war we did not know there was such a thing as the last word—indeed, there were none—but now we have sound apparatus which we can do that which would have been thought miraculous.

We can determine the depth of the sea, the distance of an object, and the bearing of it. Perhaps we can do even more wonderful things than we yet know. It costs approximately \$25,000 to make the sound installation on a battleship. Some of the items mentioned have already been accomplished on some ships.

REPAIRS AND RENEWALS OF EQUIPAGE.

Items P and B are, respectively, the repairs and renewals of equipment on a ship. By the equipment I mean such important machinery and apparatus not definitely part of the structure of the vessel, as the power-boat machinery, much of the radio outfit, all spare parts, machinery, both steam and electric, searchlights, electric fans, and electric blowers, instruments and special tools, and things of that kind that are not of an ordinary sort. They run into a considerable sum. The annual repairs to them on a battleship have averaged over \$8,000. Sometimes they are destroyed and have to be replaced.

For instance, by gun-blasts a searchlight may be completely shattered, not merely the glass but the structure. If it is the glass, we

battleships for the fiscal year 1921, and reducing prices of labor and material—we have also obtained all the other classes of vessels that there are, accuracy for it for each and every ship, but in the average for a class of ships I do claim that it is estimate as it is practicable to make to-day; and the list all the way, including the various classes of find about what you can gain by putting out of commission more of any class. The distribution here is by class design. The distribution as prepared in the Division is for classes of vessels as to their use.

For instance, this table shows, in the case of Eads commission. None of them are to be in active commissioning craft of the Fleet so far as I understand, but tenders or as bases for aviation or submarine craft on the report that I am turning in, as if these Eads be actively in commission. I mention this because this list to be used as a means of determining the

each naval district there is one sea-going tug kept constantly adiness for use to answer signals of distress. We have relieved al cases of merchant ships, and one or two cases of vessels of navy. There are also the tugs that we have at the navy yards. number of them has been very much reduced.

serious study was made to find out whether it would pay to keep igs in commission, or to hire tugs; and the method that would he least money determined the answer in each case. The numf harbor and district tugs has been cut down in that way. At of the yards, in addition, they have certain floating craft that ntirely for the service of active vessels, such as water barges, arges, ambulance boats, and craft of that kind. You will find down at the bottom, a list of small boats which cost \$28,000. are the barges, gigs, etc., that they have throughout the service. e total ship costs, as shown on this list, is \$12,061,323. That is ll that I need, but that is the least with which it is practicable, ieve the least with which it is possible, to maintain and to op- on a reduced scale the vessels of the Navy that will be in com- on during the fiscal year 1923. You can not cut that figure ut decreasing materially the effectiveness of the machinery of eet.

the hearing before the House Appropriations Committee I was l whether that figure might not be subject to reduction on ac- of the possibility of using material from scrapped vessels; being asked to make an estimate as to how much of that mate- t would be possible for me to use on the machinery of the active during the next year, I stated that I should guess that I could 500,000 worth. I am of the opinion that that \$500,000 may have used to decrease my estimate. The estimate that I am submit- to you is identical with the one that I submitted to them for the number of vessels, be it understood. I mean the unit costs lential. The fact is that that \$500,000, I believe (and I have no n to depart from that figure; there is not any way of making urate) will be a definite gain to us next year; but, on the other , I have used during the present fiscal year and also during the fiscal year, upon which I base these estimates, a very large nt of material that was scrapped from the war, not from these ls.

hould be very glad indeed to have you correct my estimates on asis of the material that I am going to get from scrapped ves- f at the same time you will take into account the material that e recovered from the scraps of construction yards, etc., during ar. I have used over \$3,000,000 of that and not figured it in estimates made from our 1921 expenditures. If you will take nt of both sides of that scrapping you will make an addition o and a half millions to the estimate I have presented to you. lo not ask that, but if you wish to take one of those things into nt, I request that you take the other. But I consider that er should be taken into account in making up the appropria-

I present a figure that I have made every attempt to make spond exactly with the letter and the spirit of the orders that from the Secretary of the Navy, to cut as far as I could and

keep the Navy from getting worse off. That is the basis upon which these estimates are submitted. I can not cut them any lower without hurting. They are down to the quick.

The figure that I have given, of twelve millions and odd, for ship costs is part of it—the principal item. In order that the fleet can keep on functioning, they must have bases to which they can go. I have a lot of other expenses that I have to pay for out of this engineering appropriation other than those ship costs.

PERCENTAGE TO BE USED ON FLEET.

In one fiscal year, not so very long ago, less than 30 cents every dollar of this appropriation went for the fleet. The rest for various other purposes. Those other purposes are subsidiary to the major purpose of maintaining the floating Navy, and in estimates I have definitely restricted all the other items of appropriation to figures that are materially lower than they have been in proportion to the work that I have to do, but it is necessary that I invite your attention to those other figures, because they have to be provided for to a certain extent. The item of costs alone can not meet the engineering needs of the ships, because to get those materials into them there must be other expenditure from this appropriation.

INSPECTION.

We have to do inspection. We have to inspect the vessels that are under construction and the engineering materials under purchase at various parts of this country. There will be a considerable number of vessels still under construction next year, and in that connection the settlement of contracts for vessels that are to be scrapped will require at least the present inspection force for at least the major portion of next year; after those vessels are cleaned out that portion of our inspection force will be reduced, of course. But there will always remain the necessary inspection for materials under purchase for fleet; this includes a great deal of special material which requires expert attention. At present I have got the cost of inspection down to a rate of \$419,369.92. That is a good deal lower than it has been in the immediate and the rather remote past.

CLERKS AND TECHNICAL EMPLOYEES.

We have clerks and technical employees at certain of the nonindustrial yards and stations—such as Cavite, Guam, Pearl Harbor, Guantanamo, and even Key West, which has one. We are spending now at the rate of \$59,995.84 for this purpose. That figure can not be cut. There has to be a certain amount there.

As the item for our inspection, clerical, and technical forces submitted to the House Appropriations Committee, the total for our civil-service employees, outside of the industrial navy, was \$665,312.80. You see, under the accounting rules that we have and under the law, the classified force in the industrial navy is charged to the cost of work done, and thus the classified force

yards is included in the table of ship costs. To revert, I asked the House for \$665,312.80 for the classified force outside of the industrial yards. Apparently I am asking you for less. As a matter of fact, I am asking you for the same amount, because the figures that I submitted to the House included \$185,947.04 that is being paid to the draftsmen and technical force in the Bureau of Engineering, Navy Department. That is now included under "Salaries, Navy Department," in the House bill as it has come to you as the item of \$1,000, restricted for that one purpose (p. 26, line 7, of the bill).

I mention that because I wish to be sure that it is understood that we have not duplicated the estimate. I have taken the whole thing into account. As a matter of fact, in the estimates that I am giving you, I have deducted \$185,947.04 from the figure that I gave the House. I have not provided for the same service twice in my estimates. On the contrary, I have provided for a saving of \$10,947.04 to the Navy Department. That is going to be accomplished by cutting the force that much in the Bureau of Engineering.

At the nonindustrial yards and stations there is machinery that, if not used, it wears; if not used, it rusts. Some work has to be done to keep that machinery from becoming worthless—not much, but some. The Bureau of Engineering has to stand its share of that cost of maintenance of the machinery. I ask for \$200,000 under that item. If you will take into account the capital value of our investment at these yards and stations you will see that that is a very small figure.

Similarly, I have asked for \$200,000 for new machinery at all yards. I call it "new machinery"; it is new apparatus of any kind.

For instance, I want to put in a machine with which I can make centrifugal castings; a new process, which for the first time made possible the manufacture of satisfactory piston rings for Diesel engines. It does not cost much, but it costs something. The rule that I have is, "How much will it save you? Will the amount that is installed cost be entirely repaid within the current fiscal year?" If so, I will do it. If not, I will not.

That is the way I am operating at present. I do not think that it can be attacked as unsound from the point of view of the propriety of the appropriations. It certainly can not be attacked from the point of view of real economy; but you spent a lot on navy-yard shore-station improvement during the war, and I am of the opinion that the needs of the fleet are too great to justify the diversion of an unnecessary cent elsewhere.

IMPROVEMENTS, ETC., AT SHORE STATIONS.

The department has issued an order to all navy yards and stations on the subject of improvements and alterations at shore stations. I will read extracts from it:

Hereafter no improvement, alteration, or major repair initiated by any shore station shall be undertaken except as follows:
Every improvement, alteration, and major repair proposed by any shore station shall be recommended by the commandant or officer in command of the station, and shall be approved by the bureau to whose appropriation it is to be charged, or by the Navy Department. Such recommendations will be accompanied by estimates of time and cost, and the reasons in full.

* * * * *

I am asking. I do not think I have reached the proportion that will go directly to the fleet, but a ce overhead is necessary. I will get more of this into because that is what we have to do. As I shall show the conditions are extremely exigent for me. I am p sible, under the law and under the Navy Depart for the adequacy and sufficiency of the machinery o the Navy, for the condition of that machinery to pe for which it is designed: for the fitness, in short, of and various other features of the vessels of the Navy, is not fit to day for all service, and I have not anything nor, in the present condition of the Treasury, can anything like the money that is absolutely necessa the Navy can be ready and fit. I have to put ever; find it to the fleet, and I am doing it. That is my di the Navy but to the Nation, and incidentally to my

RECORDS OF CONGRESS

or to sell this equipage in most cases, at least, for then when the goes back in commission I would have to buy new equipage. age from a ship to be sold is also, much of it, capable of use, repair, to outfit other ships. The economical way is to repair equipage; then, being put into a state where it is ready for use, issue it instead of buying new material. Under this method I get pretty nearly full value out of second-hand material.

Senator HALE. Is not that taken care of elsewhere?

Admiral ROBISON. In the estimates for ships? No, sir. I have included that at all. The repair of this equipage is a shore-on expense, the care of equipage in store. It is not repair of page on board ship. The total P expense there does not include of this. I have only asked for \$300,000 under this item.

VALUE OF EQUIPAGE ON DESTROYERS.

The value of the engineering equipage on a destroyer is about 100, and we are now putting 150 of them out of commission. hundred and fifty times \$88,000 is \$13,200,000. It will be worth ly that if I can keep it so, but it will not be worth much of any- g if I do not take care of it. Under this item, I believe that I e not asked for enough; but, being foolish and green at the thing; going to adhere to my error, because that is what I asked for . I have not tried yet to get along with this little fund, but I ing to manage it if I can. The way I expect to do is to issue material as fast as I can, to meet the needs of ships remaining in mission and to replace that stock with new material, which not g been used is very much less apt to deteriorate.

STORAGE BATTERIES.

We have of storage batteries alone—small kinds, you know, that use on telephones, etc., aboard ship—a very large amount, and I l have to use them right away or else they will not be worth hing. Having been used they deteriorate.

Senator PHIPPS. Why not dispose of them?

Admiral ROBISON. I could get nothing for them, Senator, and I ld then have to buy new ones for the ships remaining in com- ion, and they would cost me a lot.

Senator PHIPPS. They represent so much idle capital until you can ze them.

Admiral ROBISON. Yes.

Senator PHIPPS. And they cost something to maintain.

Admiral ROBISON. Yes, sir; they will, and this is the reason that nt to do the way I am suggesting.

When you want those ships—there are 150 of them—you say, : I can buy that material new, and then I will know it will be ood order. When I say "you" I do not mean personally. I k I can do it and have that one thing of storage batteries ready me, probably; but I could not get storage batteries and search- s and hand tools and radio equipment and hundreds of other s all at once. I could not duplicate all of that material in the that it will take me to get the ship itself ready. In the mean- , my business is to have the ship ready when you want it. You

do not want it three months from now; you want it, if you want it at all, badly; and Senator, I do not believe that one man can do five 30-day jobs in 30 days. This equipage would add another two or three extra, 30-day jobs for me to accomplish in the time that would be required to put the crew on board and get the ship and have her ready to do the work for which she is designed. If you ever want the ship, I have to have my end of it ready before I think that is the reason, and to me it is a sufficient reason—

it is to you—for having the Navy fit, as well as merely in being ready.

I could go on at considerable length on this subject.

Senator PHIPPS. I did not mean to lay any stress on it. I am dropped the remark for you to think out at your leisure.

Admiral ROBISON. There is room for very considerable difference of opinion on that point, without question, sir. My job is to get the ships ready—to keep them fit—and it will cost some money to do it. I ask for \$300,000 for repairs to equipage in store.

I ask for \$50,000 for putting ships in commission. Under the plans we are going to have three new light cruisers next year will be commissioned. The initial engineering outfits of armor, etc., not chargeable to the building appropriation, will have to be paid for. That is a direct and immediate capital expense. I think that \$50,000 is inadequate for this, but it is all I have asked for and I am going to get along with it.

ENGINEERING EXPERIMENT STATION.

One item, subject to attack, is that for expenditures for tests, and experiments. If you will take into account the expenditures that we are making in engineering for experiments you will find that you have \$200,000 for the engineering experiment station; that I am asking for \$82,000—I have not spoken of that yet, but I will—for the clerks, etc., and civilian experts that I have employed at the experiment station; that I have, in addition to that, \$150,000 that I am including in this figure under the appropriation "engineering" for making tests, models, and experiments. The grand total is \$432,000, of which \$200,000 is under the appropriation "engineering experiment station." We are saving this year, from past expenditures under this item, considerable more than that sum. I should like to tell you the kind of work we are doing right now. I have made a list here of what we are now doing at the fuel-oil testing plant at the navy yard, Philadelphia.

TEST OF DENSE FUEL OIL.

I am trying to find out how to use dense fuel oil. It is going to require considerable expenditure for engineering to make it safe and safe; but, if I can do it, it will decrease the unit price of fuel oil about 80 cents a barrel. That is what I am trying to do, and I imagine, and from preliminary reports I feel justified in saying that through the expenditure from appropriation "Engineering Experiment Station"—well, after I have finished the experiments, perhaps a few hundred dollars—we will succeed within two years in saving the Government four or five million dollars a year. That is worth working on if I fail; and I do not intend to fail.

ator HALE. You do not think we can cut down on our fuel priation this year on account of this, do you?

niral ROBISON. Oh, no; you can not. You will have to wait we get there. I will have to make good, and then you can cut.

ator HALE. But you have not made good yet?

niral ROBISON. No; and after I have succeeded in my tests I ave to spend a million dollars on improvements of machinery ps before you can start on this saving in the price of fuel. I made that point clear, Senator?

ator HALE. Yes.

niral ROBISON. I shall have to do some work in the ships; I ave to put in some new heaters; I shall have to put in a lot of and I shall have to find a way to make safe the burning of the ade oil, and I have not found it yet.

ator PHIPPS. What are you paying for fuel oil now?

niral ROBISON. The average, I believe, for the Navy is \$2.16 a

ator PHIPPS. And that has to be a particular grade, and not it comes out of the ground, does it?

niral ROBISON. There are several commercial grades of fuel his is the high commercial grade. You see, I am not asking at million dollars now that I will have to put in on the ma- y in order to make it able to burn the low-grade oil. I am not for it, because I am not certain how I want to spend it. To e heavy low-grade oil I think I shall have to put in every ship tra heater on each boiler, a change in all the piping, one extra l pump for each ship, and a considerable amount of fuel-oil that has to be made very carefully, specially designed. This t I think. We have been working on this for three or four s. I think that before next fall I shall be able to tell you what do if I can go ahead with the experiments, and when we suc- will save the Government at least a third of the price of all el oil that we burn if I make the success I expect to make; but

ator HALE (interposing). You can not tell whether you will l or not? That is problematical now?

niral ROBISON. This is an experiment, sir, and that is just the but it is worth spending some money when you have a good ering chance of making such a big success. At our fuel-oil plant at Philadelphia we developed the best method of burning l that there is to-day, the method that is now standard in com- l practice, the method that was originally derided by commer- el-oil users. We have succeeded in finding how to burn fuel oil certain conditions better than anybody else can burn it, but to use the low-grade fuel I shall have to change that method at. I am trying that. Furthermore, the method that we are does not retain complete flexibility; that is, it does not retain h efficiency for all ranges of power such as we have in our oilers. I am trying to improve that.

PLASTIC FIRE BRICK.

arry around for our boilers a very large number, some 1,200 it shapes, of fire brick. We have recently developed a plastic ck that we can use, and while it will cost us just as much per

brick it will not cost us anything for the tying up of idle capital and will reduce the number of shapes 50 per cent. In making tests of commercial fire brick. The fire brick expense this year was about \$300,000 less than it was last year. That is a pretty good share of all I am asking under my item for tests and experiments and this is a direct result—the fact that we are using a better grade of fire brick; and it is commercial fire brick, too. We are not trying to develop anything that is unusual, or impossible, beyond commercial production. We are trying to obtain the cooperation with commercial producers, accurate knowledge of what we need, and in that way we have made some radical cuts in our costs. I will show you some of them a little later, if I have

DUPLICATION OF WORK.

Senator PAGE, Admiral, is any other department considering a fuel proposition in any way?

Admiral ROBISON. This particular proposition?

Senator PAGE. Yes.

Admiral ROBISON. So far as I know, nobody. I am talking about the consumption of fuel.

Senator PAGE. I understand.

Admiral ROBISON. Let me see: It may be that the Shipping Board are getting our specifications. I believe they are. I know we are doing certain inspection work for them. For instance, we have evolved some specifications for nonferrous metal that have been adopted by the Shipping Board, and we are inspecting their denser tubes. I am inclined to think that we have made a definite contribution to exact knowledge of admiralty metal products and specifications that we have recently been able to produce in conferences with all the manufacturers, and tests that we have made at the Engineering Experiment Station.

Senator PAGE. You know that there is no extensive duplication of work looking to the same end, do you?

Admiral ROBISON. We are working, whenever we have a chance, with the Bureau of Standards. The Federal Specification Board has almost 100 per cent of Navy Department specifications incorporated in the specifications for all the departments. Our work along this line is most extensive, has a history behind it of several decades, and has made definite contributions in the matter of development of the steel industry, for example—I did not compare to boast, but we are rather proud of what we have accomplished—

Senator PAGE (interposing). I do not want to divert your attention, Admiral.

Admiral ROBISON. Ninety per cent of all the Navy Department specifications are being adopted for all the other departments of the Government by the Federal Specification Board to-day. The reason why they are being adopted is because they are the best and the reason why they are the best is because we have spent money on experiments. It is under those experiments that we have established standards for lubricating oil. We have cut the cost of our lubricating oil, which when Senator Newberry was Sec-

Navy was about \$1 a gallon, down to less than 40 cents a

ator NEWBERRY. How did you cut it? I thought the vendors
t it.

airal ROBISON. Precisely; we gave specifications that secured
tition.

ator NEWBERRY. Do you not suppose that there was competi-
years ago?

airal ROBISON. Not a bit.

ator NEWBERRY. I am sorry to say you are too young to re-
r it.

airal ROBISON. I was in the Bureau of Engineering at that

ator NEWBERRY. We had plenty of competition.

airal ROBISON. Nothing but lard oil; do you not remember?

ator NEWBERRY. We had a lot of competition. There were
or four competitors.

airal ROBISON. Yes; I know; but it was all lard oil that we
or lubrication.

ator NEWBERRY. Lard oil was the best.

airal ROBISON. And I think you suggested that we were foolish
t matter.

ator NEWBERRY. I know it, but we used other oil, too.

airal ROBISON. Yes; but we spent in those days for lubricating
think, more than we are spending to-day, on a Navy that was
one-tenth of the one we have now. In those days I think we
more for lubricating oil than we do now. I know that we are
ng to-day half of what we spent last year.

ator NEWBERRY. That was before the days of forced lubrication.
ad just started to have it then.

airal ROBISON. Yes. We had, in those days, three people that
hed oil. One of them was the Vacuum Oil Co. That came
you were Secretary, and I think it was largely the result of
activities as Assistant Secretary that there were three. One
m was the Vacuum Oil Co.; one was the Robinson people,
iother was—I can not trust to my memory on that history busi-
but we have cut the price of lubricating oil from \$1 to 36 cents,
ecall, at present. It was \$1.05 in 1911, and it came from the
ments that we made at the engineering experiment station. We
out how to determine what makes a good lubricant. Our
cations for lubricants are now in use by the Shipping Board.
been informed that it is avoiding a waste of several millions.

specifications for lubricating oils are in use by the City of
York. Our specifications for packing are being adopted for
tire Government, and for a good many commercial concerns;
ey are being adopted because we are getting, by specification of
y, an ability to depart from reliance upon a trade name. That
is the \$432,000 a year, and at present it is saving us I do not
how much. In fire brick alone it is saving us \$300,000 this year
npared with last. In packing and lubricating oils and the
is steels, etc., I imagine that it is saving us, from my appropria-
million dollars a year, at least. That will continue whether I
ead with that work this year or not, because that work we

have got done; but I have more; this is the sort of work doing: For example, the smoke-screen tactics. It is a naval problem.

IMPROVED METHODS OF PRODUCTION OF SMOKE SCREENS.

Smoke screens are made by putting too much fuel in. That was the way it was originally developed by the Admiral Eberle in an attack on the eastern end of the 1912 or 1913. That was the first time a smoke screen in the Navy. It is the same smoke screen that enabled us to escape from the British fleet off Jutland. To make a smoke screen you put too much fuel in the furnaces, and you get a pall of black smoke. When you do that, you coat the tubes with soot, and you make it hard for them to run, and you cause a pulsation in the boilers that cracks down the brickwork. It is an expensive proposition, and a dangerous one.

We are working on a scheme which will save a lot of work.

Senator PAGE. Have you in mind, Admiral, the total that you expect to make this year for experimentation?

Admiral ROBISON. Yes, sir.

Senator PAGE. In round numbers, what is it?

Admiral ROBISON. In all, \$432,000, of which \$150,000 is under the special appropriation, "Engineering." The balance is needed in the appropriation for the clerical and technical employment at the experiment station, not included in the special appropriation. The \$150,000 for models, tests, and experiments, only a part of which is accomplished at the experiment station.

MODELS, TESTS, AND EXPERIMENTS.

Senator NEWBERRY. I understand that the \$150,000 has never appeared anywhere before.

Admiral ROBISON. That \$150,000 is what I am talking about.

Senator NEWBERRY. It does not appear in the bill, does it?

Admiral ROBISON. I think it did appear in the bill of the House committee. I may not have seen it. I went down there with that purpose. In the House committee hearings, that it does appear in the bill—graph—models, tests, and experiments, \$150,000. The \$432,000 appears on page 533 of the House bill.

I ask for \$150,000 for experiments, plus \$200,000 of the messenger, clerical, drafting, and classified force at the engineering experiment station, that \$200,000 that appears in the bill under the heading of "Experiment station," that \$200,000 covers the cost of the mechanics at that station.

EXPERIMENTS ON DIESEL ENGINES.

This does not include everything that I should like to do. An engineer thinks he knows a good deal about a diesel engine. I should like to be able to spend a good

which I am not able to do, of course, and which the state of treasury does not justify me in asking for money with which experiment on them. I have restricted my request for experiments to problems that are of direct and immediate application, and things that are at all far off. There are lots of other people working on Diesel engines.

SHORE RADIO SERVICE.

side of the ships themselves, the biggest item in my appropriation is for the shore radio service. That is the one item as to which, in debate on the floor of the House, my estimates were seriously questioned by the House Appropriations Committee. It is because of the major item of difference that I have covered it very much in detail, and that I will ask your indulgence a little later while I went to a good many technical terms, etc.

I wish to confine myself for a moment to the statement that I have appropriated for \$2,822,360 for necessary and urgent work—not for experimental work but for immediately urgent and necessary work under the head of the Coast Signal Service. The ship radio costs included in the tabulated list of ship costs (the blue print). The shore radio stations you can not give me less than the \$2,822,360 and give me enough. You can give me less, but you can not give me less and give me enough to keep our radio service going. I would like to say right now that our naval radio service is increasing by which we really have done something for the United States.

At this moment commercial radio companies in the United States are exercising an almost predominant influence in world radio work. We have no control of any international cables to speak of; by the same token we have practically complete freedom from foreign control of radio communication between the United States and anywhere else. That has been brought about to no small extent by the operation of the Navy Department, by assistance of the Navy Department rendered in a proper way, that I do not have anything to say—to the American radio companies.

General Electric Co., I am informed, had control of some of the best radio patents and apparatus for which they were offered \$5,000,000 by the British Marconi Co.; and in response to suggestions from the Navy Department that it was desirable that American international radio commercial service be maintained, as the stations in the United States were concerned, they (the General Electric Co.) formed a new company, strictly American, and used these patents as a basis for the Radio Corporation of America.

The same corporation were turned over licenses of patents for apparatus that were held by the American Telephone & Telegraph Co. and the Western Electric Co. The concern soon became one of the most important patents on apparatus for long-distance radio communication—apparatus other than those owned by the Navy Department. Arrangements for the interchange of licenses were made by the Navy Department with the owners of other

The net result of it was that the American Radio Co. can use the modern and best-developed apparatus that there is. We had

during the war, established by the Navy, a complete system of radio communication with foreign countries for supplementing overcrowded cables, and for stand-by service in event of destruction of cables by enemy submarines. When I say "complete," it means as much as we ought to have had for the really thorough solution of the problem, but it was a very considerable solution of a commercial part of it is now no longer held by the Navy. I am familiar with the terms by which it was gotten rid of, but the net result of it is that through American control we can now get with anyone and be sure that our information will get through.

For instance—and this still is Navy—the only report of the Conference on Limitation of Armament that reached China was over the Navy radio service. The cables, unfortunately, had been about that time and could not handle this load satisfactorily. They are under the control of other countries. If you want to get something through, you can send it through by the Navy radio and be sure it gets there.

That is done; that has been accomplished; but I will come to that a little later. The naval expenditures for radio are considerable, but they are not unnecessary, nor have they proved uneconomical to the American nation. We will need this next fiscal year \$2,822,360 for that purpose in the appropriation "Engineering."

Senator PHIPPS. Is that carried in an item in the bill?

Admiral ROBISON. No, sir.

Senator PHIPPS. How has that been provided?

Admiral ROBISON. It is part of this total of \$16,795,000 that we have at the top.

Senator PHIPPS. That is what I wanted to know.

Admiral ROBISON. It is part of that total. It is included in the bill, sir. A portion of that is for maintenance; a portion of it is for renewal of defective apparatus. I will cover that in detail.

Senator PHIPPS. Very well.

Senator PAGE. Is there any other expense connected with radio except what is included in the \$16,795,000?

Admiral ROBISON. No, sir; all of it is in there.

CONTINGENT.

Now I have one item that I can not explain satisfactorily, but it is an item that is very real.

I am starting off to-morrow for New York, and I am coming by way of Norfolk, having made the trip from New York to Norfolk by man-of-war. I have set down the various items of expense as I foresee them and figured out how much they amount to for the trip, but I will not take that amount. I will take a lot more than that is the result of my own experience in these matters. I have been able to compute beforehand what it is going to cost to do anything unless I include a considerable amount for what I call "contingent." If the figures that I have submitted to you are not in every detail made a minimum, made to represent the known necessities, a separate contingent item might be necessary.

I have made the figures for the items that I have given you, what I think they ought to be, but what I know is the budget I get along with. In some respects they are bound to be

for example, that I have become aware of since I made the total computation, is the amount that it is going to require to care of the equipage that is in store. I know that it is going to cost me more than the \$300,000 that I have submitted for that use.

I have asked that 2 per cent be included for a contingent allowance—that is, \$350,000 for this. If a ship goes aground, if we burn a boiler, if we have any major casualties anywhere—and there has been a year yet that we did not have some—I have got to care of them. I can not justify the size of my contingent item; I can not justify its expense, except by one thing. At the risk of offending myself, I would like to state that I have not allowed for emergencies. I have always had emergencies. I have no reason to expect that there will not be emergencies next year and I have given order that I shall create no deficiency.

Senator HALE. That \$350,000 is to cover unforeseen contingencies come up in any of these other items?

Naval ROBISON. Yes, sir.

CARE OF EQUIPAGE IN STORAGE.

Senator PHIPPS. Have you any approximate estimate of the goods in storage that are to be cared for at a cost of \$300,000 for the year?

Naval ROBISON. I can get you that figure, I think. A good deal of what we have on hand in store consists of a great deal of material that has been scrapped, and is not charged with any value. I am not sure that as far as I can.

Senator NEWBERRY. Can you state what part of that is naval and what is Army stores?

Naval ROBISON. The Paymaster General can tell you about that.

Senator NEWBERRY. You do not have to care for that material?

Naval ROBISON. Sometimes, to an extent.

Senator NEWBERRY. Have you the care of naval supplies now?

Naval ROBISON. No, sir; not wholly. Sometimes I have.

Senator NEWBERRY. You have the care of the naval supplies under the naval supply fund that are drawn?

Naval ROBISON. Yes.

Senator NEWBERRY. I presume there is machinery in that?

Naval ROBISON. Yes, sir.

Senator NEWBERRY. Then, you must have a great quantity of the tools and machinery left over from the war?

Naval ROBISON. Yes; I have most of that at work. I put three-fourths of that at work in the last 18 months.

AIRCRAFT MACHINERY AND TOOLS.

Senator NEWBERRY. I know where there is a couple of acres of it. It is for aircraft machinery and tools.

Naval ROBISON. I have not anything to do with the aircraft. I am sorry to say. I might use some of that.

Senator NEWBERRY. Are not the machine tools under your charge?

Naval ROBISON. Not if they are special aircraft machine tools. They are going to appropriation "Aviation, Navy."

Senator NEWBERRY. Well, they are machine tools. What Admiral ROBISON. I am engaged in the business of machine work, anywhere, anything I can find that is idle. I have millions of machine tools at work within a short time past.

Senator NEWBERRY. What bureau of the Navy has control of these machine tools?

Admiral ROBISON. Of that aircraft stuff—the Bureau of Aeronautics. Aside from that, almost entirely, Engineering.

Senator NEWBERRY. It is all Engineering. I think, that they had in various places, in Detroit.

Admiral ROBISON. I do not remember now.

Senator NEWBERRY. I have not been there for a year.

Admiral ROBISON. If there is any of it there I do not know it, and I am glad you told me.

Senator NEWBERRY. There is an acre of such material there.

Admiral ROBISON. The naval aircraft carriers, you know, are going to require a certain amount of tools.

VALUE AND AMOUNT OF TOOLS IN STORAGE.

Senator NEWBERRY. What Senator Phipps wanted to know was what we might as well put it in now, is what is the value of the tools, what is the amount of the tools, that your \$300,000 fund is for. I think we ought to have an inventory of that property, to know whether it is worth \$300,000 to care for it. You do not have a record of that.

Admiral ROBISON. I know that from these destroyers being put out of commission we have \$13,000,000 worth of equipment that is alive, and has got to be put back in use. I have no record for it.

Senator PHIPPS. That is what I wanted to find out; and at what extent naval stores, coming under your department, are declared surplus up to date—since the war?

Admiral ROBISON. I can not tell you how many millions. I can tell you definitely that there is a continuing survey being made for the purpose of counting as surplus everything that I am trying to get rid of the surplus.

Senator NEWBERRY. Have you an inventory or list or record of the naval supplies in the naval supply fund and subject?

Admiral ROBISON. No, sir; not a detailed inventory.

Senator NEWBERRY. That is like a great storehouse of supplies you do not know what is in it.

Admiral ROBISON. I have a good record of all special equipment material, and I have one man in charge of a section in it devoted to the job of maintaining it.

Senator NEWBERRY. They want to get rid of a good material of that fund.

Admiral ROBISON. I have helped them to the extent of \$5,000,000 in the last few months. For example, we have several loads of belting. We did not pay a cent for it.

Senator NEWBERRY. That was from the war?

Admiral ROBISON. Yes; bought during the war. It was a waste. If we did not use it it would be on hand and still be

NAVAL SUPPLY FUND.

ATOR NEWBERRY. How can you tell what it is necessary to ask for, if you do not know what is in the naval supply fund?

ADMIRAL ROBISON. I send around first and see if there is anybody as any used material. Nearly everything I ever use is in the supply account fund, but everything I draw from it I must draw out of my current appropriation.

ATOR NEWBERRY. Somebody knows what is in the naval supply

ADMIRAL ROBISON. Yes; the Bureau of Supplies and Accounts has. We are sometimes informed of certain details, but we do not know definitely, and in order to get it I have got to go down to the Bureau of Supplies and Accounts and obtain the information.

ATOR NEWBERRY. There are about \$250,000,000 of supplies in the fund now?

ADMIRAL ROBISON. I do not think that that is a sufficiently high

ATOR NEWBERRY. Well, it is not exaggerated?

ADMIRAL ROBISON. I would say that it is not exaggerated.

ATOR NEWBERRY. They used to think they were very wealthy when they had \$100,000,000 in the supply fund.

ADMIRAL ROBISON. They expect to get it cut to about \$150,000,000. I think. If, after they get it cut to \$150,000,000, we find that they cut it further, you can depend upon it we will.

ATOR PHIPPS. There is a surplus in the department now—under your supervision?

ADMIRAL ROBISON. Yes, sir.

ATOR PHIPPS. You must have an initial point—first, what you have on hand. What steps have you been taking to determine what you have on hand other than having this one man look over the books that you have there?

ADMIRAL ROBISON. The man who is in charge of all of those supplies is the Paymaster General.

ATOR HALE. Does he not have a tabulated statement of everything that he has on hand, available to other departments?

ADMIRAL ROBISON. I have never seen one, sir.

CARE OF EQUIPAGE IN STORAGE.

ATOR NEWBERRY. I have never been able to get quite clear in my mind what he has in his charge in the naval supply fund. What the Bureau of Steam Engineering has in the way of naval supplies. What thing to do with what he has. What you want the \$300,000 to care for something he has nothing to do with?

ADMIRAL ROBISON. Yes, sir; this \$300,000, that I want, is to repair and make fit for reissue the equipage that has already been paid for out of the engineering appropriations, and which is temporarily in store.

ATOR NEWBERRY. What I want you to do is to please tell the committee what this is composed of that it requires \$300,000 to care

ADMIRAL ROBISON. That is composed of the title B material; almost entirely of special technical material.

Senator NEWBERRY. Yes; and will you furnish us with a list of it

Admiral ROBISON. Yes; I will get you one.

Senator NEWBERRY. We would like to have it.

Admiral ROBISON. I will put my answer to that in the record.

Engineering equipage, Title B, carried in store or to be turned in from ship going out of commission for the repair of which \$300,000 is asked.

1. Boilers and engines (boat)----- \$1,941,775.

(Parts pertaining to Item 1.)

(a) Motor boat gasoline engine, bureau type:

Bearings—

Inboard, with stuffing box.

Outboard.

Inboard, lock nut.

Stern, stuffing box.

Magneto, shaft.

Shaft and thrust.

Strut.

Bedplates, lower crank case.

Bodies, pump, bilge and circulating.

Brackets, magneto.

Brasses—

Connecting rod.

Crank shaft, end.

Crank shaft, intermediate.

Bushings—

Eccentric rod, pump.

Half bearings.

Shaft, magneto.

Lubricator gear and spark control.

Cases, crank, upper.

Chambers—

Air, circulating pump.

Air, bilge pump.

Collars—

Lock.

Shaft, magneto drive.

Thrust.

Connections—

Water inlet.

Cylinder exhaust.

Cylinder inlet.

Controls, throttle.

Couplings, shaft.

Covers—

Handhole.

Magneto.

Transfer, port.

Water jacket.

Cylinder.

Spark plug.

Cranks, starting.

Cylinders, main.

Eccentric, pump.

Fairwaters, engine.

Elbows, inlet pipe.

Fittings—

Exhaust.

Circulating water.

Gaskets, complete.

Gears—

Magneto, crank shaft.

Magneto, drive shaft.

and engines (boat)—Continued.

) Motor boat gasoline engine, bureau type—Continued.

Glands—

Pump.

Stuffing box.

Jaws, pump, plunger.

Lever, jacking.

Manifolds—

Exhaust.

Inlet.

Nipples, flange.

Nuts—

Gland, stern bearing.

Propeller.

Pins—

Piston.

Piston, oversize.

Taper, connecting rod.

Pipes—

Exhaust.

Discharge, circulating water.

Circulating water, supply.

Pistons, main.

Plates, magneto.

Plungers, pump.

Propellers.

Pumps, complete, circulating and bilge.

Rings, piston.

Rods—

Connecting.

Pump, eccentric.

Shafts—

Crank.

Intermediate.

Magneto drive.

Propeller.

Thrust.

Strainers—

Circulating water.

Bilge.

Tubes, stern.

Washers, magneto drive.

Wheels, fly.

) Motor boat gasoline engine—Sterling and Van Blerck:

Arm, distributor.

Armature—

Generator.

Starting motor.

Bands—

Reverse gear.

Reverse gear, brake.

Bearing—

Cam shaft, front end.

Cam shaft, rear end.

Cam shaft, intermediate.

Crank pin.

Crank shaft.

Crank shaft, fly wheel end.

Crank shaft, reverse gear end.

Generator.

Piston pin.

Reverse thrust.

Thrust-ball collar.

Thrust radial.

Blocks, distributor.

1. Boilers and engines (boat)—Continued.

(b) Motor boat gasoline engine—Sterling and Van Blerck—Continued

Body—

- Oil strainer.
- Bilge pump.
- Water circulating pump.

Bolts—

- Connecting rod.
- Reverse gear.

Bracket—

- Distributor housing.
- Distributor drive.
- Force feed lubricator.
- Generator.
- Starting motor.

Breaker, generator.

Brush—

- Generator.
- Starting motor.

Cam—

- Carburetor.
- Reverse gear, movable.
- Reverse gear, stationary.

Caps—

- Carburetor.
- Distributor.
- Force-feed lubricator.
- Inlet valves.
- Exhaust valves.

Carburetor, float feed.

Case—

- Crank, lower.
- Crank, upper.
- Reverse gear.

Clamp, distributor.

Coils—

- Distributor.
- Generator.
- Starting motor.

Collars, reverse gear.

Cups, grease.

Cone, reverse gear.

Connecting, carburetor.

Contact, maker, distributor.

Control, spark and throttle.

Coupling—

- Flexible.
- Magneto.
- Water-circulating pump.

Covers, reverse gear.

Cylinder, engine, main.

Disk—

- Carburetor.
- Reverse gear.

Distributors, complete, with coil.

Dogs, reverse gear.

Drive, Bendix, starting motor.

Drums, reverse gear.

Eccentrics, forced feed lubrication.

Fingers, reverse gear.

Float, carburetor.

Flushers, carburetor.

Gaskets—

- Carburetor.
- Cylinder.

Gauge—

- Air.
- Oil pressure.

Radio apparatus and outfits—Continued.**Bushings—**

Arc chamber.

Spark gap.

Buzzers, high-frequency.**Caps, ear, head, telephone.****Cathode sheaths, arc set, complete.****Carbons, arc.****Clamps, splicing.****Coils—**

Inductance.

Magnet.

Relay.

Receiver, tickler.

Condenser—

Standard, mica.

"Leyden," jar.

Variable.

Contactors, relay.**Contacts, key.****Cups, alcohol.****Detector renewals—**

Carborundum.

Galena.

Silicon arsenic.

Diaphragms, head telephone.**Gaps, rotary.****Gaskets—**

Quenched gap.

Sparked gap.

Handles, antenna switch.**Holders—**

Anode, arc set.

Cathode, arc set.

Insulators—

Bulkhead and entering.

Column, strain.

Supporting.

Wave changer.

Packing, arc chamber.**Protective devices.****Racks, condenser support.****Relays, antenna grounding.****Springs, contactor carrier.****Supports, antenna.****Switches—**

Antenna transfer.

Solenoid operated, remote control.

Hand-controlled.

Lightning.

Telephone, head.**Tubes, vacuum—**

Receiving.

Transmitting.

Units, quenched gap.**Electric apparatus and outfits----- \$12,332,008.11**

(Parts pertaining to Item 5.)

Adapters—

Branch box.

Deck fixture.

Junction box.

Receptacle.

Ammeters—

Switchboard type.

Portable.

Triple range.

Annunciators, water-tight.

2. Pumps and their parts----- \$1,576

(Parts pertaining to item 2.)

Bolts--

Air chamber.

Valve.

Bushings--

Crosshead.

Piston rod stuffing box.

Chests, valve.

Cylinders, complete.

Cylinder covers.

Diaphragms, rubber.

Levers, air pump.

Links, pump.

Pumps--

Gasoline engine, plunger type.

Complete, bilge and circulating.

Bilge.

Brine.

Feed.

Rotary.

Steamer engine.

Rods--

Piston, complete with nuts.

Plunger, complete with nuts.

Stems, valve.

3. Engine-room and fire-room fittings----- 24

(Parts pertaining to Item 3.)

Bars, slice.

Blades, hoe.

Bodies, atomizer.

Brushes, boiler tube.

Cans, squirt.

Cleaners, turbine.

Compound, boiler.

Couplings, atomizer.

Filters, oil, waste.

Glasses--

Boiler, flat.

Boiler, round.

Tank.

Gongs, engine-room.

Handles, fire tool.

Hose, complete.

Indicators, speed.

Injectors.

Pipes, atomizers.

Plugs, atomizers.

Points, slice bar.

Registers, air.

Scrapers, boiler tube.

Spirals, atomizer.

Sponges, loota.

Strainers, atomizer.

Strong backs, hoe, cleaning.

Syringes, oil.

Tips, atomizers.

Tubes, atomizers.

Washers, atomizers.

Waste, cotton.

4. Radio apparatus and outfits----- 4,966

(Parts pertaining to Item 4.)

Antenneters, frequency.

Arcode tips, arc set.

Brushes, chopper wheel.

Radio apparatus and outfits—Continued.**Bushings—**

Arc chamber.

Spark gap.

Buzzers, high-frequency.**Caps, ear, head, telephone.****Cathode sheaths, arc set, complete.****Carbons, arc.****Clamps, splicing.****Coils—**

Inductance.

Magnet.

Relay.

Receiver, tickler.

Condenser—

Standard, mica.

"Leyden," jar.

Variable.

Contactors, relay.**Contacts, key.****Cups, alcohol.****Detector renewals—**

Carborundum.

Galena.

Silicon arsenic.

Diaphragms, head telephone.**Gaps, rotary.****Gaskets—**

Quenched gap.

Sparked gap.

Handles, antenna switch.**Holders—**

Anode, arc set.

Cathode, arc set.

Insulators—

Bulkhead and entering.

Column, strain.

Supporting.

Wave changer.

Packing, arc chamber.**Protective devices.****Racks, condenser support.****Relays, antenna grounding.****Springs, contactor carrier.****Supports, antenna.****Switches—**

Antenna transfer.

Solenoid operated, remote control.

Hand-controlled.

Lightning.

Telephone, head.**Tubes, vacuum—**

Receiving.

Transmitting.

Units, quenched gap.

Electric apparatus and outfits..... \$12, 332, 008. 11

(Parts pertaining to Item 5.)

Adapters—

Branch box.

Deck fixture.

Junction box.

Receptacle.

Ammeters—

Switchboard type.

Portable.

Triple range.

Annunciators, water-tight.

5. Electric apparatus and outfits—Continued.

Armatures—

Fan.
 Generator, Leece-Neville.
 Interior communication.
 Magneto, Bosch.
 Motor, starting, Leece-Neville.
 Radio, blower motor.
 Spark coil, Bosch.
 Ventilating set.

Bakelite-dielectro—

Rod.
 Sheet.

Batteries—

Audion.
 Flashlight.
 Storage.

Bearings —

Fan.
 Generator, ball.
 Magneto, ball.
 Motor generator.

Bells—

Water-tight.
 Vibrating.

Blades—

Fan.
 Switch.

Blinkers, tube, portable.

Blocks: —

Distributor, Atwater-Kent.
 Fuse.
 Distribution.
 Plug type.
 Magneto.

Bodies, spark coil.

Bolts, switch handle.

Boxes—

Branch.
 Connection.
 Distribution.
 Junction.
 Feeder.

Brackets

Battle lantern.
 Turret light.

Brushes

Dynamo—
 Fan.
 Generator, Leece-Neville.
 Magneto, Bosch.
 Motor, starting, Leece-Neville

Bushings —

Insulating.
 Magneto.
 Motor starting.
 Socket, Lamp.
 Spark coil.
 Switch handle.
 Ventilating set.

Buttons, push.

Buzers, portable.

Caps

Junction boxes.
 Distributor, Atwater Kent.
 Searchlight.
 Sound receiving.
 Spark coil.

ic apparatus and outfits—Continued.

rbons, searchlight.

lls, storage battery.

rcuit breakers, generator.

amps—

Distributor, Atwater-Kent.

Microphone, sound receiving.

eats, porcelain.

ips—

Blade switch.

Fuse.

ills—

Field, Atwater-Kent.

Fan.

Generator, Leece-Neville.

Motor starting, Leece-Neville.

Motor generator, interior communications.

Spark plug.

ndensers—

Blinker signal.

Magneto, Bosch.

Spark coil, Bosch.

ontact makers—

Alarm gong.

Cease fire.

Fixed.

Portable.

ontacts, thermostat.

ontrollers—

Blinker signal.

Man overboard and breakdown light.

Speed and truck light.

ouplings, multiple point.

overs—

Branch box.

Distribution box.

Junction box.

Magneto, Bosch.

Receptacle box.

Switch box.

immers, running light.

rops, annunciator.

ements, motor generator.

ans, bracket and desk.

iber—

Horn.

Insulation, rod.

Insulation, sheet.

ittings—

Interior.

Branch junction box.

Connection box.

Distribution box.

Feeder junction box.

Push buttons.

Receptacle and switch.

Switch.

Telephone jack.

ixtures—

Anchor light.

Bedside.

Portable.

Bracket.

Bulkhead.

Ceiling.

Deck.

5. Electric apparatus and outfits—Continued.

Fixtures—Continued.

- Desk.
- Gauge lights.
- Magazine.
- Speed light.
- Steering light.
- Truck light.
- Turret.
- Water-tight.
- Nonwater-tight.
- Flash lights, hand.
- Fuse elements—
 - Midget type.
 - Regular type.

Fuses—

- Cartridge type.
- Plug type.
- Link.

Generators—

- Charging, Van Blerck.
- Testing, Ohmmeter.

Globes—

- Bracket and ceiling.
- Cargo fixtures.
- Steam tight.

Guards—

- Bulkhead fixture.
- Fans.

Holders, brush—

- Fan.
- Generator.
- Magneto.
- Motor generator.

Holders, shade.

Housings—

- Magneto, Bosch.
- Spark coil, Bosch.

Igniters, submarine chaser.

Interrupters, magneto, Bosch.

Jars, storage battery.

Keys, switch.

Knobs, porcelain

Lamps, incandescent.

Lanterns—

- Electric.
- Ardois signal.
- Battle.
- Blinker system.
- Diving.
- Masthead.
- Running.
- Safety.

Lenses, running light.

Lights, permanent.

Magnetos—

- Berling.
- Bosch.
- Sumter.

Mica—

- Plate.
- Pressed.

Microphones, sound-receiving.

Mirrors, searchlight.

Motor generators, interior communication.

ric apparatus and outfits—Continued.

otors—

Blower.

Carbon rotating, arc type.

anel material, switchboard.

aper, insulating.

aste, soldering.

ates—

Insulating.

Mica.

ugs—

Attachment.

Water-tight.

Nonwater-tight.

Spark.

Telephone.

scelvers, sound.

ceptacles—

Water-tight.

Nonwater-tight.

flectors, deck fixture.

lays, auxiliary lighting.

sistances, fan.

eostats, fan.

bbon, copper.

ds, ignitor.

settes—

Cleat.

Concealed.

rews—

Distributor, Atwater-Kent.

Magneto, Bosch.

Spark co'l, Bosch.

Thermostat.

archlights—

Antiaircraft.

Signaling.

utters, Searchlights.

ckets—

Illuminating set.

Incandescent lamps.

ples, insulated.

rters, motor.

tips—

Magneto, Bosch.

Searchlight, front door.

Thermostat.

tches—

Control.

Cutout.

Knife.

Starting.

Transfer.

, insulating.

phones—

Fire control.

Ships' service.

ting sets, telephone.

mostats, mercurial.

, ignitor.

ss—

Porcelain.

Terminal.

lug—

Mica.

Micanite.

Rubber.

Electric apparatus and outfits—Continued.

Ventilating sets, portable.

Vibrators.

Voltsmeters—

Alternating current.

Direct current, portable.

Direct current, switchboard type.

Wattmeters, alternating current.

Wire—

Fuse.

Resistance.

Zincs, battery.

Instruments of precision-----

(Parts pertaining to Item 6.)

Beakers, boiler water testing.

Boards, drawing.

Bottles, boiler water testing.

Bulbs, hydrometer.

Burettes, boiler water testing.

Clocks—

Dynamo room, nonmagnetic.

Engine room and fireroom.

Curves, drawing.

Gauge, testing outfits.

Hydrometers.

Instruments, drawing.

Planimeters.

Protractors.

Readers, Gyro compass, repeater.

Salinometer pots.

Storage battery testing outfits.

Tachometers.

Thermometers—

Mechanical.

Mercurial.

Thermostat.

Triangles, drawing.

T-squares, drawing.

7. Tools, machine, outfits and parts-----

(Parts pertaining to Item 7.)

Arbors, steel reamer.

Blades, hacksaw, machine.

Chisel blanks, pneumatic.

Chisels, hand.

Chucks, drill.

Countersinks—

High speed.

Carbon steel.

Cutters, milling machine.

Dies, riveting.

Dogs, lathe.

Drill presses.

Drills—

Electric.

Pneumatic.

Twist, sets.

Grinders, electric, portable.

Hammers, pneumatic.

Holders, machine tool.

Holders on, pneumatic.

Jam riveters, pneumatic.

Lathes.

Mandrels, lathe.

Planers.

Punches, machine.

ls, machine, outfits and parts—Continued.

reamers—

Bridge.

Chucking fluted.

Shell.

Socket.

High speed steel.

vet sets, pneumatic.

ws—

Machine operated.

Circular, metal cutting.

apers, machine.

ckets, tool, morse taper.

ols, machine.

lve receiving outfits.

hand----- \$574,753.06

Kinds of.

rs, chisel.

llows, foundry.

ides, hacksaw, hand.

ices, bit.

ipers.

sels—

Blacksmith, handled.

Machinists, hand.

mpps—

"C."

Screw.

intersinks, carbon steel.

ters—

Emery wheel dresser.

Gauge glass.

Pipe.

Washer.

's—

Pipe.

Machine.

Solid.

iders, machinists'.

essers, emery wheel.

ills—

Breast.

Twist.

anders—

Hose.

Tube roller.

ures, stamping.

les, machinists'.

atters, blacksmiths'.

'ames—

Hacksaw.

Pipe wrench.

illers, blacksmiths'.

annels, copper.

rnaces, charcoal.

auges—

Center.

Depth.

Micrometer.

Drill.

Wire.

Screw pitch.

Surface.

Thickness.

ammers, machinists'.

8. Tools, hand—Continued.

Irons—

Flat, electric.

Soldering, electric.

Jaws, pipe wrench.

Levels, machinists'.

Oil stones.

Pins, drift.

Pipes, blow.

Pliers.

Posts, drilling.

Pots, gasoline.

Punches—

Backing out.

Center.

Reamers, carbon steel.

Registers, tallying.

Rules—

Calliper.

Multiple folding.

Scrapers, machinists'.

Screwdrivers.

Scribers, machinists'.

Sets, rivets.

Shears—

Bench.

Hand.

Lever.

Shovels.

Sieves, foundry.

Sledges.

Squares—

Calliper.

Combination.

Try.

Stakes, coppersmiths'.

Straight edges, machinists'.

Taps—

Machine.

Pipe.

Tongs, blacksmiths'.

Tools, boiler-makers'.

Torches—

Gasoline.

Welding.

Trowels.

Vises, machinists'.

Wrenches.

9. Boilers and Engines, Ships, Accessories for----- \$1

(Parts pertaining to Item 9.)

Bars, Grate—

Single.

Double.

Binding strips, turbine.

Blading, turbine.

Blocks, cast iron, baffle.

Bolts, boiler, handhole cover.

Boxes—

Cross, long.

Cross, short..

Side.

Calking strips, turbine.

Castings, bridge, wall.

Covers, handhole.

Engines, Ships, Accessories for—Continued.

Stillers—

Navy standard.

Reilly.

Boilers, furnace.

Reilly strips, turbine.

Vaporators—

Navy standard.

Reilly submerged type.

Standard Water System Co.

Land strips, turbine.

Boilers, Boiler—

Back, center.

Back, corner, left.

Back, corner, right.

Intermediate.

Front, center.

Front, corner, left.

Front, corner, right.

Boilers, furnace, door.

Boilers—

Flame.

Dead, furnace.

Boilers, boiler—

Back, corner, left.

Back, corner, right.

Front, corner, left.

Front, corner, right.

Whistles, chime, ships.

Zincs, boiler, standard.

Total ----- \$34, 075, 006. 73

Senator PAGE. Is this material depreciating and going back in very fast? Your leather belting, I suppose, does not depreciate. Do you have a lot of rubber belting that is going backward?

Senator ROBISON. No, sir; we are not holding any of that material.

Senator PAGE. The matter of fact, that belting is in the naval supply account fund.

Senator ROBISON. Machine tools unused would deteriorate if we did not take some of them. But the way we have been doing is to supply all the

of any vessels primarily, and of any navy yards secondarily, the surplus stock of machine-tool equipment that we got from

the extension appropriation during the war. We have had a large number of these items declared surplus—where they have come

from the naval supply account fund.

Senator PAGE. The Paymaster General and the chiefs of the other bureaus are

attempting to reduce the supplies in store down to a minimum that is necessary for the working of the Navy. There are only a few things,

however, that we ought to keep on hand in excess of the relatively immediate needs, such as material which can not be obtained within

continental limits of the United States. Such things are almost all of them not subject to deterioration in store. I refer to such

things as nickel, tin, and certain other metals, rubber, and various other things that we need but that we do not produce in sufficient

quantities in the United States. There is but little of that, really, that is required. I believe that our amounts of those stores

are small; but the Paymaster General has all of them.

CARE AND PRESERVATION OF NAVAL PETROLEUM RESERVES.

There has recently been placed within the charge of the Bureau of Engineering, by the Secretary, the care and preservation of the naval petroleum reserves. The care and preservation

of these reserves involves at present almost entirely expense for observers in the field to see that no encroachments are upon the rights of the Government, and to gauge the product wells that are leased by the Government to private parties, and handle accounts. This matter is handled at present almost entirely by the Secretary of the Interior, as the representative of the Secretary of the Navy, acting under an order of the President—of I believe you know, but I must furnish the funds for it to the Interior Department. I need \$100,000 for that. The expenses here were somewhat less, but there have been recent developments in the Wyoming reserve that will require an additional expenditure in that locality above what it has been in the past, and \$100,000 is required. Now, adding up the various items I have given you, you have a total of \$16,795,048.76, which is the amount of the figure I gave you at the start.

Senator PAGE. \$16,881,000?

Admiral ROBISON. \$16,795,000 is with a correction made.

Senator PAGE. The amount is \$16,795,000?

Admiral ROBISON. Yes, sir.

Senator PHIPPS. Have you put in the details of that \$16,795,000?

Admiral ROBISON. I am going to furnish you a copy of this. I will read it, if you wish. [Reading:]

(a) Ship costs.....	\$12,001
(b) Clerical and technical forces not included in (a) and exclusive of the item of \$175,000 under "Salaries, Navy Department".....	479
(c) Maintenance of equipment at military stations.....	200
(d) Necessary renewals of equipment at industrial yards.....	200
(e) Repairs to equipment in store.....	300
(f) Commissioning vessels.....	50
(g) Models, tests, and experiments.....	150
(h) Classified force at Engineering Experiment Station.....	82
(i) Coast signal service and radio laboratory.....	2,822
(j) Contingent.....	374
(k) Naval petroleum reserves.....	100
Total.....	16,795

At the present we are using, for the same Navy, \$20,500,000 a year we used \$29,950,000. In making this estimate for 1923 not depended entirely upon the——

Senator HALE. You mean that you are using \$20,500,000 next July?

Admiral ROBISON. For this year which is ending July 1; last year, under Admiral Griffin, it came to \$29,950,000. I have depended, in making these 1923 estimates, upon these recent expenditures. Of course, they are the best guides, but they are the only ones, and I have gone into it to find out how they compare with the record of some time ago.

Senator HALE. If we should take the House figures, where the cut have to be made?

Admiral ROBISON. If you should take the House figures it means a decrease in the number of ships I can keep in condition.

Senator HALE. That is practically the only place where a decrease could be made?

Admiral ROBISON. No; it would be partly there and partly somewhere else; but it would decrease the number of ships you

condition. This is one of the appropriations upon which the ability of operating the fleet depends. The ships are the ones that I would hit. Think of everything else first, and then to ships. Everything that I could cut without cutting the fleet would cut.

or HALE. Your estimate is about as much——

ral ROBISON (continuing). You can not run that fleet for less amount I have given here. I give you my word. You can not, unless this: Let your repairs accumulate, etc. I will come on in a moment. You can let your repairs accumulate; do not do it. Let them all get run down. You can go without painting for one year after you ought to do it, but you lose in the end, because you paint your wood begins to rot.

or HALE. That is what was done, I assume, when you said 10 per cent was used for the fleet, was it not?

REQUESTED PER HORSEPOWER COMPARED WITH AMOUNTS REQUIRED IN PREVIOUS YEARS.

ral ROBISON. Well, I am of the opinion that that was what I did not do it, and I do not know. I have a little book that I want to go into presently. I would like to show you a total I have asked for compares with what we need; how it is the statement that I have made that it is a minimum figure. Five years before the war, for every one of those five years, the Government spent for engineering in proportion to the service rendered, on the care of so many horsepower, more than twice as much as I am asking this year.

or POINDEXTER. Will you state that over again?

ral ROBISON. For each of the five years before the War, in proportion to the service rendered, the care of horsepower; that is, every year, the Government spent more than twice as much as I now ask, and I do not believe that your dollar has increased in value.

or POINDEXTER. In a very few words, could you state the out-what caused that difference?

ral ROBISON. Yes, sir; I will. In the first place, we are older, and we know a little bit more about how to do it; in the second place, the machinery is a little better. The high-speed geared machinery, the electric-drive turbine machinery, cost as much to operate as the old quadruple expansion ma-

If you will look at this thing I just presented to you, at the bottom, you will see just exactly what I mean here. In 1913 we had 100,000 horsepower, \$3.95. That is for the year's engineering; all engineering, except radio, \$3.95. There you have the cost all along. In the war years it went up to \$6.70 and \$9.23; and it came down, as you will notice.

Next year, if you do not pay any attention to any ships whose hulls are in active commission, if you do not pay any attention to any that we have got out of commission at all, and just keep on paying your expenses to those in active commission, we can not do it; you know; I have got to pay something to people to take the ships out of commission—the amount is shown on that chart; the amount of our allowance per horsepower is \$2.90.

The average of those five pre-war years is \$3.53. If you take it all in, it now comes down to \$1.35, as compared with \$3.53.

Now, I do not think that that indicates that I am asking for more money than I need. As a matter of fact, I am sure upon that I am asking for less money than I need; but I am asking now not for what I wish, but for the minimum that I know I have got to have.

In the case of some commercial concerns that are operating ships I have compared our costs with theirs. A certain—perhaps the most successful—American ship-operating concern is running a tanker at a cost of \$19.96 per horsepower for its engineering supplies, repairs and not including anything else, but just the actual expenses of the ship—\$19.96. That does not include any of this inspection and overhead. That ship has a quadruple-expansion engine.

The same concern is running another tanker, twin screw, with triple-expansion engines, a less complicated type of machinery, for \$16.17 per horsepower. Those ships are being operated under conditions that are very different from the way machinery in the Navy is operated. They are operating at practically full power all the time. Our ships are not. Their time underway, instead of being 2 per cent, as ours is, will be in excess of 50 per cent. Their costs are to be very much higher than ours. Those ships are being driven. But their costs are six times as high as ours. The usual merchant ship practice is to allow about \$8 per horsepower per annum for machinery maintenance and repairs.

The way we are cutting down on expense is by training the people afloat to self-maintenance. Through better operation and training of ships' forces we are now largely avoiding the necessity for repairs and the repairs that are necessary we are accomplishing by the ships' forces to an extent that never before was approached. That we are succeeding better than before the war is due to the fact that our predecessor—and I am continuing it—collected information as to the proper method of overhaul, maintenance, upkeep, and repair of naval machinery, and caused this information to be widely disseminated throughout the service. The bureau's pamphlets of instructions are being strictly attended to. The officers in the Navy have been made to understand—I am not talking now about officers in that position I am in, administration ashore; I am talking about officers that are captains or executive officers or engineer officers of ships—they have been made to feel that if they waste money they are merely hurting themselves and the Navy but also the pocket of the taxpayer. We are explaining, shortly, that there is more done to the Navy every time we do not get all we can out of it. In that way, for example, every condenser is now returned to the ship's force instead of making it a navy yard job. You see, Senator Newberry, when the first one of those was returned by a ship's force.

Senator NEWBERRY. Yes.

PENDING LOAD OF WORK.

Admiral ROBISON. There is one thing that I want to invite attention to. To my mind it is very important. There is now a great deal necessary to be accomplished, in order that the machinery of

ns of the Navy be fit for the service for which it was designed, 6,000,000 worth of work that I know of that has got to be done. you do it now, you will have your Navy fit and ready. If you it it off, you will have to spend more money later and you also ll have to have the time that is necessary to accomplish that work ore your ships are ready.

Senator NEWBERRY. Will you insert a list of that work in the cord?

Admiral ROBISON. Here it is, sir, if you want it. Here it is in il. I would rather not put it in unless it is desired by the com-

ator PHIPPS. Have you a summary of it there?

Admiral ROBISON. I have a short summary which I can give.

Senator HALE. What does that consist of?

Admiral ROBISON. That consists of three kinds of work; first, repairs that have accumulated. There is a large amount of repairs at I have not done and have got to do, in order to make the Navy

It amounts to over \$5,000,000, if you take the whole Navy. ere are certain changes that have got to be made in order to omplish certain military purposes, in most every case unknown the time that the ships were designed and built, but known now the result of war experience or inventions that have been made. ere are certain other changes that are necessary if you want to re fuel. I mentioned one of those expenditures a little while ago it will be necessary to enable ships to use heavy fuel oil. I do not stend that I am not going to make some progress on that floating next year. I purpose to do it if I humanly can, because that job, to extinguish that floating load.

Senator POINDEXTER. You speak of floating load?

Admiral ROBISON. When I say the floating load, I refer to the ding work, work that I know of that I ought to do, and that not do because of lack of funds. If I make any headway never on that, that headway is going to be measured entirely what improvement I am able to make in administration of the nds that are entrusted to me.

Senator HALE. You do not expect that we are going to have that re us in this appropriation bill?

Admiral ROBISON. You are not going to be asked to appropriate y money for this, but it is a fact which I believe should be made wn to the committee—that there is now necessary for vessels in ssion, for combatant ships, \$1,293,900 worth of repairs we not done.

There is \$4,732,874 worth of alterations that have been approved ired in order that the vessels be ready for military service. There is also \$2,385,300 worth of alterations that are necessary for of economy.

for v ls that are combatant ships, that are out of commission, ere is \$14,650 worth of repairs.

Senator HALE. Are those amounts included in the accounts here?

Admiral ROBISON. They are at the moment; yes, sir. There is ,145 worth of repairs to combatant ships out of commission. none of these figures are included in the estimates I have tted to you for the fiscal year 1923. I am not authorized to

ask for money for this pending load; I am just inviting your attention to its existence, a fact which measures the readiness of the Navy to accomplish its mission; a fact which measures the degree of reliance that the Nation can make upon its first arm. The machinery will not be ready until \$16,000,000 worth of work has been done beyond what is included in what I am authorized to ask for for 1923.

Senator HALE. Some of it is for ships that are out of commission. Admiral ROBISON. Yes.

Senator HALE. And that there is no intention of putting in commission now?

Admiral ROBISON. No; but they are combatant ships. There is no intention of putting them in commission now; but I have here also the deferred work for all the ships that are in commission; I read the figures off. They amount to something approximating \$9,000,000—the ships that are in commission.

Senator HALE. What is it that is necessary? Is it changes that should be made in the ships to make them more efficient?

Admiral ROBISON. Half of them; the change is for efficiency's sake. The other half is for repairs or for changes to make them safe.

Senator HALE. Not the repairs you have taken in here, in the chart, at all?

Admiral ROBISON. Not any of this is included there; but, if I can make a saving by improvement in administration of the appropriation that you give me, through an increased degree of cooperation by the service, some of it will be accomplished. I, myself, can not do it, you know; and you can not save the money yourself any more than I can. You can keep me from spending it by not giving it to me, but you can not save it. Withholding the money merely saves the Treasury from being drawn on. But then you do not get anything for it. My job is to get more and more out of what you give me. The more that I can get out of each dollar, the more headway I am going to make on this pending load; and there is a real and definite and necessary lot of work to be accomplished in order that the machinery of your Navy can be ready for your service when you need it; and from my point of view, engineering only, machinery only, you have got to spend \$16,000,000 on this pending load before your Navy is ready to fight.

Senator PAGE. Outside of what you have asked here?

Admiral ROBISON. Outside of every cent that I have asked for. Mr. Chairman. I am not authorized to ask for anything for that purpose this year. I am only authorized to ask for what I need for maintenance now—what I need to keep the Navy from getting worse.

Senator NEWBERRY. This is all for fighting efficiency? It is not substituting brass radiators in place of steel radiators?

Admiral ROBISON. No; I would not call that necessary. What I am speaking of comes under the head of economical operation. It would save us a great deal of money in the end.

Assistant Secretary ROOSEVELT. All you wanted to indicate was that there was this lot of repairs and improvements which are necessary to place our Navy in efficient condition, and which we would very much prefer to make, but which we are not asking for at this time. That is practically the sum total of that situation there.

admiral ROBISON. Now, I will tell you what I want to do. If I do something to make the fleet better, if I do not give the fleet a run for the self-denial, the hard work that the men in the fleet plish for the purpose of saving money, if something can not be so that they can see that their self-denial takes the form of an improvement in the efficiency of the fleet, you can not keep them working. That is my belief, anyway. They are human. We have got an opinion that is almost limitless to be ready for service, and it is peculiar to one; it is a general condition, I think, that all of you know and how general it is. But if I had too much I would not want one cent. You can not make it possible for me to waste. This is the sort of thing I want to do. Here is a list of it, and I will not list it, but I would like to state right now that what I want to do is put on 60 submarines some radio. That is the first item I have got, put on 60 submarines some radio apparatus that will enable them to talk to other submarines.

EFFICIENCY OF SUBMARINES.

Senator NEWBERRY. You had better put in some machinery that will make them go.

admiral ROBISON. God knows I want to. I have 60 of them that are working.

Senator NEWBERRY. You have not got 60 efficient submarines?

admiral ROBISON. I think I have got 60 that are as efficient as any that the Germans had during the war. We have not got any that satisfy me, but I think we have that many.

Senator NEWBERRY. As long as these hearings are open to the public and everything that is being said here is to be published, I hope that you are right.

admiral ROBISON. There are nine of those submarines that some of them I have got to put new machinery in, but I have not asked you for money for that this year.

Assistant Secretary ROOSEVELT. Some of those submarines are only going in commission. When you said 60 you were referring to them as part of the 84. We have some of those that are coming next year that are included in these 84 boats some of which are 90 per cent completed. The only ones we have had that have been on account of the crank shafts.

FUEL-OIL PURIFIERS.

admiral ROBISON. We have, on every ship on which we are burning oil, had trouble because water got in the oil, and the fires went out and there was no power. I have got to fix some way to keep it from stopping. The machinery has been devised to cure that, and it is comparatively simple; that is, in comparison with the work involved; but it is going to cost money, both for electric-feed pumps and fuel-oil service pumps, and they have got to be run from storage battery.

Senator PHIPPS. Is it possible to arrange for fuel in which you do not have water?

admiral ROBISON. No, sir. It ought to be.

Senator PHIPPS. I would get rid of it before I put it in my fuel tank. You ought not to have to do that on the boat.

Admiral ROBISON. That is one of the things on the list that I want, to put in fuel-oil purifiers. That is Item N.

Senator PHIPPS. That ought not to be done on the boat. The fuel oil ought to be purified before it is put on board.

Admiral ROBISON. Commercial fuel oil has up to 2 per cent of sediment and water. The water collects at the bottom of the tanks.

Senator PHIPPS. I would spend the money for a fuel-oil purifier at the station instead of having a separate one on every boat.

Admiral ROBISON. The tanks of the tank ships and oil barges are seldom quite tight, you know. Some of them get a little water in them. Furthermore, the reason you want to put that fuel pump on a man-of-war is in order to be sure that you have something good when you need it. A man-of-war may have to oil anywhere in the world, and can not be dependent upon a selected, special oil station.

Senator NEWBERRY. You want them on every submarine?

Admiral ROBISON. We have got to have something of that kind. We have put an oil purifier on every battleship and destroyer to purify the lubricating oil, and it is saving us an average of their cost every year in bearings and new turbines.

Assistant Secretary ROOSEVELT. Now, gentlemen, it seems to me we are diverging a little from the point. The \$16,000,000 you are talking about now is something that we are not asking for, and therefore the question as to whether each item is justified is not a matter that is pertinent at the moment.

COAST SIGNAL SERVICE; RADIO EXPENSES ASHORE.

Admiral ROBISON. There is one item that I wish very much to discuss in print, although not necessarily here. That is radio expenses ashore. The radio shore stations will cost us \$2,822,000. I have a discussion of that here which shows, first, that this does not duplicate any other services, either Government or commercial; second, that it is necessary to the safety of ships in time of war; third, that it pays a dividend to the Treasury more by 100 per cent than the amount of its expenses every year.

Senator POINDEXTER. Does that come under the Bureau of Engineering?

Assistant Secretary ROOSEVELT. Yes; that comes under "Engineering," subhead "Coast signal service."

Admiral ROBISON. This matter of radio service was originally placed under the Navy Department by President Roosevelt to avoid interference among the different departments of the Government. It has been developed, and we have gotten the best deal of it; every bit of it that we could. The radio stations cover the entire coast of the United States and every island. They include to-day the light vessels; but they do not include no expenses for light vessels, because those are undertaken by the Department of Commerce.

This chart shows the location of all those stations and the capacity of them. The radio stations include radio compass stations. The radio compass stations include means for the location of ships. Personally, I commanded the *Imperator* in the ocean. I was eight hours behind the *Leviathan*. I waited at Ambrose Light Vessel, and I caught her before she

bearings, giving me a fix, so that I came booming in at 18 to 20 knots. I caught up with her. The only reason that kept us in was because I had a senior officer on the *Leviathan* of course, you do not go ahead of him under such circumstances. radio saves times, loss of life and shipping.

have here a large number of reports from vessels, which show the naval radio compass service has saved them from perhaps a, perhaps only loss of time. Of course, captains do not admit it saves them from disaster. They only admit that it saves loss of time.

have here a statement which includes progress that has been made in radio art directly due to the naval radio service. It will show the United States naval radio is in the van. Now, it is not necessary that we stay in the van, but it is necessary that you should not drop what you have got, and in order to avoid letting go what you have, you have got to take care of one or two details, and that must be done now. For example, in this radio-telephone work that is saving the rage for the moment all over the country, in order that this work may be successful both telegraph and telephone waves must be sent free from harmonic waves—the mush. We know how to do it. We are doing it. We have not completed it. We should spend some money on that. If we interfere with commercial communications we become liable for damages.

Assistant Secretary ROOSEVELT. Admiral, I think the gentlemen on the committee would like, if possible, to touch just the high spots, let the rest of it go into the record and study over it at their leisure.

Admiral ROBISON. I will give all of this matter to the stenographer. We have closed 23 radio stations since the war. We would close those on the Great Lakes if we could find somebody else to run them, but we can not do it. They have got to be there. You can not abandon an institution for the saving of life unless it is going to be taken over by some other department. The cost of it is included here, it is not very great.

We have got at the present time definite need for all of that money. I have asked, and I could wisely spend a great deal more, but we have no right to ask for it. The minimum need is what I have given

Senator PAGE. Let me suggest to you that in making up your statement for the record you separate those particular things which do not come before us in our discussion on this bill in the Senate. They should be divided so that we may take what is to be considered what is in the future separately.

Senator POINDEXTER. It all appears, I think, on the statement in the record.

Admiral ROBISON. A great deal of this radio discussion includes the fact that I intended to furnish for the record, but it is subject only to the desire of the committee: I have the reasons that will come before the mind completely justify the figures that I have submitted. But to involve a description of the work that is being done, the description being necessary in order to indicate the degree of necessity for the work that I am requesting funds for. I have that here, but there is no necessity of putting any of this in the record. I can leave it out.

Assistant Secretary ROOSEVELT. I think it is a good thing to have it in the record, Mr. Chairman, so that the members of the committee can read it at their leisure.

Senator POINDEXTER. Let us have it all in. It will be instructive and useful.

Senator PAGE. Do you not think that we should separate that which comes in the present bill, that which is current, from that which is in the future?

Assistant Secretary ROOSEVELT. That all refers to current radio work and the necessity for it.

Admiral ROBISON. Do you want this blue print of ship costs published in the hearing? I intended it just for the information of the committee. The figures are based on the report of the Payn General for the fiscal year 1921.

SHIPS TO BE COMMISSIONED.

Senator NEWBERRY. Where did you get the information for the ships that will be in commission?

Admiral ROBISON. I have a list from the Chief of Naval Operations.

Assistant Secretary ROOSEVELT. That is a list of the ships that we furnished as the ships that could be kept in commission with the personnel of 86,000, down to this line [indicating]. Below the line there are certain submarine chasers and Eagle boats which are predicated upon the passage of the naval reserve act.

Senator PHIPPS. Now, Admiral, I would like to know how important these cruisers of the second line are as compared with those designated as light cruisers?

Senator NEWBERRY. He does not know anything about that.

Senator PHIPPS. These are the figures on the repairs here. second line cruisers in commission you want \$13,000 per boat, and for the light cruisers you want \$35,250 per boat.

Admiral ROBISON. The relative values of the ships is so that I have not anything to do with. The Secretary of the Navy, upon the advice of the Chief of Naval Operations, with the personnel available, is the best balanced one for us to obtain.

Senator PHIPPS. But you made up these figures of the repairs, did you not?

Assistant Secretary ROOSEVELT. Senator, I would be willing to take that up at any time and discuss it with you; but the necessity for each individual ship is not in Admiral Robison's province. His province is, after that is determined as to him, to say how much the repairs are going to cost.

Senator PHIPPS. The question I asked him is, comparing of repairing the second-line cruisers with the cost of repairing light cruisers, why is it going to be necessary to expend \$35,000 on the light cruisers as against \$13,000 per boat on the second line?

Assistant Secretary ROOSEVELT. That is within Admiral Robison's province.

Admiral ROBISON. The cruiser of the second line is not as fast as the light cruiser. The light cruiser is a vessel of very much higher speed and very much greater horsepower.

Senator PHIPPS. All right. We will go into that when you come back, Admiral.

Admiral ROBISON. The new light cruisers are of 90,000 horsepower each, while the cruisers, second line, are of very much lower power—than 30,000 horsepower each.

Assistant Secretary ROOSEVELT. The difference is because one is of a greater power than the other—has more powerful engines.

Senator HALE. I have some questions that I would like to ask the Admiral, but I would like first to read over the record and see just what he has testified to this morning.

Senator PAGE. We have agreed that we would recall him.

Assistant Secretary ROOSEVELT. I think that it would be wise to do so; that you should first get his statement in so that you can read over and examine it thoroughly, and then you can recall any of the members of the Naval Establishment that you want to question.

Admiral ROBISON. I will return on Monday and will be ready at that time; I will hold myself at the committee's disposition as they may desire me to do so.

Thereupon, at 12.45 o'clock p. m., the subcommittee took a recess until 2.15 o'clock p. m.)

RADIO AND SOUND.

The engineering appropriation includes all expenditures for radio equipment for ships and naval shore radio stations. The radio installations on the largest vessel of war are extensive and complicated, varying in value from \$150,000.

The entire efficiency of the fleet in strategy and tactics prior and during the war is on its efficient radio communication, also the ability to maneuver rapidly on long-range gun fire, using aircraft for spotting. Naturally, it may be expected that there is considerable expense in constant replacements to keep pace with the rapidly evolving art and to modernize installations for prevention of interference.

Not only radio is used for communication but sound waves come under this classification. Expensive listening devices are being installed and maintained on all classes of vessels. These installations were found necessary due to experience of the World War in hunting for submarines.

Estimated expense for the Coast Signal Service for the coming year is \$1,000,000. This represents all the radio activities on shore. In addition, \$500,000 is required for radio and sound (new equipment and maintenance) on ships, and this amount has been included in the ship costs items.

The largest part of these sums is required for new equipment which has just been developed and which is absolutely essential. Due to the widespread use of radio and its ever-growing importance, especially the present telephone broadcasting for the general public, it is essential that the Navy do its part in reducing interference, and to this end the present spark sets in the Navy must be replaced by spark tube sets. This is an important advance in the radio which will increase the efficiency of the sets and will greatly reduce the interference now caused by the old spark sets.

Due to the inception of radio in the Navy as a medium of rapid communication in the Government service in the year 1902, several other Government departments established similar independent services so that the result was a duplication of Government activities and interferences between the services had, only two years later, become so acute that President Roosevelt in 1904 directed that all Government radio stations on shore be placed under the Navy, and that these naval stations handle traffic for all the Government departments, with the exception of strictly military stations of the War Department for communication between military posts of the Army and other military links.

Thereupon included funds in its appropriation to the Bureau of Navigation of the Navy Department for the "maintenance and operation of

the Coast Signal Service," which service comprises the Navy's shore stations, and has since continued to appropriate funds for this purpose.

The Coast Signal Service does not in any way duplicate the service present or probable future commercial radio concerns for the following reasons:

(a) The Navy's coastal stations are located for the most part with outlying possessions and at isolated points along the coasts and are for purpose of serving our Atlantic, Pacific, and Asiatic Fleets, these stations being essential regardless of the size of these fleets and they do not exchange commercial messages with merchant ships at sea whenever a commercial station maintaining continuous service is located within 100 miles of a station.

(b) The Navy's high-power stations handle only Government messages with the exception of such press traffic as the commercial high-power stations can not handle owing to the absence of station action on their part in charging such high rates as to discourage exchange of American press news.

Were the Navy's outlying and isolated stations not maintain the services of our fleets, therefore, there would be certain large areas between which communications could not be exchanged with merchant ships at sea, as the required facilities would not be available, and the transmission of American press news would be impracticable either to the absence of suitable facilities or the maintenance of rates too high to enable the handling of this service.

The Navy's coast signal service comprises the following principal features:

(a) Shore radio stations, established along our coasts, in the Zone, and in all of our insular possessions.

(b) Radio navigational aids for use in fogs and thick weather potentially in the interests of the national defense.

(c) Strategically located superhigh power or "key" stations connect up the system as a whole.

Radio installations on naval ships and aircraft are, of course, of obvious necessity.

Radio stations at isolated points along the coasts and in our outlying possessions are equally necessary to afford a means of communicating with them. There are long stretches of coast line within which commercial companies do not maintain and operate stations, as they are not financially profitable; therefore, it would be the duty of the Government to provide these stations for the use of our merchant marine and the safety of life at sea in any event, even though they were not required by the Navy. Commercial companies have actually established similar stations only to later discontinue operation. The Navy's coastal stations are operated continuously for the handling of routine Government traffic in connection with fleet movements at sea and in the interests of safety of life and property at sea.

Radio stations on shore as aids to navigation likewise would not be maintained and operated by commercial companies any more than would lighthouses and similar essential aids to navigation; nevertheless, these compass stations are of incalculable value to Government and commercial shipping in preventing delays in making harbors in fogs, etc., as well as in saving vessels going aground when the utilization of the ordinary aids to navigation is impracticable in fogs and during abnormal weather conditions.

The maintenance and operation of the strategical "key" high-power stations for connecting up the whole system are obviously as essential as the maintenance and operation of the coastal stations. A map is attached hereto giving the location of these stations and from which their importance readily be recognized.

The naval radio shore stations are utilized by all branches of the Government for communicating with ships at sea and with aircraft, such as, for example, the broadcasting of storm warnings by the Weather Bureau to ships at sea, the broadcasting of market reports to the Interior by the Bureau

Markets, and the exchange of communications between stations of the Air Mail Service.

Radio research and experimental work of the Navy has made possible such services as:

Great improvement in facilities for secret communications.

One wave for arc has been abolished, doubling the capacity of the crowded ether to handle radio messages.

The range of aircraft radio sets has been increased from 50 to 500 miles.

Reduction in weight of aircraft radio equipment effected, resulting in economy in fuel.

A pilot cable has been developed for harbor entrances and landing fields, for safe navigation and landings in foggy and rainy weather.

Simultaneous communications have been improved five times, meaning that one message being possible on a single ship at a time, five are possible without interfering with one another. This permits simultaneous maneuvering, spotting from aircraft, scouting signals, and other activities of prime importance to be conducted effectively.

The speed of long-distance sending has been increased from 10 to 60 words per minute (six times).

Automatic transmission and reception has been made possible.

Long-range spotting radio systems from aircraft has been developed. Without this the airplane for spotting gunfire would be useless.

A kite has been perfected for lifting an emergency antenna from aircraft wrecked to land on water when disabled. This permits messages being sent to save the lives of pilots and passengers in such event.

The principles of radio communication have been applied to assisting the location of ships by means of radio direction indicator or radio compass, with

improvements in this art to increase its reliability, resulting in 10,000

calls a month to all manner of vessels which have called for this assistance, the saving of at least one large liner every month from grounding due to

lack of other navigational facilities.

Excellent results have been obtained in tuning against static signals and other interference.

Means have been developed for establishing the presence and locating the positions of enemy submarines. Had such facilities been available during the recent World War there would have been a saving of hundreds of millions of dollars.

Long-distance communications with our submarines has been made possible. Submarines have been enabled to receive signals without coming to the surface.

Advance has been made in a radio-controlled torpedo and radio-controlled vessels.

Adaptation of existing radio transmitters to use of continuous sharp wave by elimination of modification features so that interference with radio telephone broadcast will be the least possible.

The cost of operating the coastal signal service, including replacements and expenditures, for the years 1921 and 1922, is shown below; the estimate for the year 1923 is also shown:

	1921	1922	Estimate, 1923.
Coastal stations, including high-power stations.....	\$3,531,118	\$2,517,043	\$2,490,960
Radio compass stations.....	608,005	399,612	282,900
Research and patent data.....	46,832	42,848	48,500
Total.....	4,185,955	2,959,503	2,822,360

23 radio stations, 9 compass stations, and 15 section base small radio stations closed since the war, and radio stations reduced in activities.

These annual expenditures represent the cost to the Government of maintaining the chain of stations of the Coast Signal Service which cover our Atlantic and Pacific coasts and the Gulf of Mexico and connect all of our outlying possessions by radio with the United States, and which furnishes a medium of rapid communication between the Navy Department and the Atlantic, Pacific, and Asiatic Fleets and with our merchant marine.

These stations consist of 90 coastal station with their receiving units, 46 light-vessel radio stations, 54 radio compass stations (active), 3 radio laboratories, 10 carrier-pigeon stations, 11 superhigh power transoceanic stations with their receiving units; a total of 214.

These expenditures represent the total cost of maintaining and operating these stations, including replacements and betterments, but do not include the pay of the officers and enlisted men on duty at the stations or their subsistence.

The saving to the Government in wire and cable tolls and the revenue received from the operation of the limited volume of commercial traffic authorized by Congress through these stations more than pays for the service when considered from pecuniary motives alone, but regardless of these and the other features outlined in this memorandum, the maintenance of these stations for continuous efficient operation is an absolute necessity in the interests of the safety of life and property at sea and in the national defense.

Value of naval radio service to the Government.

[Facts taken from data submitted by the Director Naval Communications.]

Fiscal year.	Earnings.	
	Deposited in Treasury.	Ships and stations.
1917.....	\$32,239.34	\$91,485.75
1918.....	291,939.05	284,088.13
1919.....	221,131.19	444,385.5
1920.....	641,554.90	1,029,885.5
1921.....	665,352.44	390,115.5

Earnings present fiscal year.

July.....	\$29
August.....	
September.....	41
October.....	25
November.....	20
December.....	22.1
Total.....	144

The "lag" in time of deposits after earnings, due to collections effected long after the actual time of earning, will be seen by comparing the "deposit" and the "earnings" columns.

That a great saving has been effected for the Government in naval communication service is shown by the following figures, which compare messages and words transmitted for the Government, with saving in dollars and cents to the Government for the fiscal year

Date.	Messages.	Words.	Average words per message.	Saving.
1920.....	4,126,644	62,499,062	15	\$5,849,291.88
1921.....	2,492,887	37,552,405	15	2,809,388.31
Decrease.....	1,633,757	24,946,657	0	2,339,813.57

The decrease of saving for 1921 corresponds to the decrease of words transmitted. The decrease of messages is due not only to many war-time activities, reducing Shipping Board Traffic, and vessels but also to the elimination of much radio and telegraph in the interests of economy.

It may be worthy to note that the interest of the American Navy communication has resulted in the United States commercial interest predominant in world radio communication.

RADIO COMPASS.

The main efforts and expenditures for the fiscal years 1921 and 1922 have been devoted to placing the temporary system of shore radio-compass stations constructed at the close of the World War on a permanent basis.

The field of usefulness of the radio compass has been expanded until now stations are suitably located on the Atlantic, Gulf, and Pacific coasts, on the Great Lakes, and in Alaska.

The radio-compass stations have been standardized and the equipment perfected, making it possible to furnish navigators of all nations approaching the United States radio bearings accurate to one degree. Many ships in distress have been located at sea, and others warned of impending dangers during fog and stormy weather through the information furnished by this most important development of radio which has been so highly developed by the Navy.

The bureau has developed and designed radio-compass equipment for all combat vessels which proved to be of such extreme value during the war, the work has progressed rapidly, and the Navy has kept pace.

The shore radio-compass system consists of: Stations built, 54; under construction, 4; proposed, 3; total, 61. Abandoned, 9.

These stations furnish on the average 10,000 bearings per month to approximately 3,500 ships and aircraft.

The Navy has equipped all destroyers, and is preparing to equip all battleships, cruisers, and important auxiliaries, a total of 345.

It is a regular occurrence on every foggy and obscure weather day for the radio-compass service, by supplying bearings to liners which permit them to state their positions accurately, to effect large savings in the following manner:

(a) By being assured of their positions, the regular or normal speed can be maintained up to within a few miles of the light vessel off the port which is to be entered. In comparison with this, if the position were not accurately known, the vessel would have to gradually feel its way in.

(b) By being able to estimate time of arrival in port, the docking facilities, the crews, etc., can be engaged at the proper time and thereby affect a considerable economy. If this time of arrival could not be properly estimated, all these activities would be going on while the vessel might be lying outside in weather awaiting clear weather for entrance.

The following are extracts from reports received from the masters of various ships, indicating their appreciation of the service rendered by the United States Navy radio compass stations:

U. S. S. *Cantigny*: "The captain U. S. S. *Cantigny* wishes to congratulate the navigators of radio compass of Bar Harbor and Cape Elizabeth on their almost perfect compass bearings during last night's storm. They were very accurate and were our only means of directing, for it was too dark for sights and our compass was out of commission."

Steamship *Agicbay* (Feb. 4, 1922): "On this vessel's maiden voyage, from New Bedford terminal at Tecumseh, Mexico, to Boston, with compasses uncertain, and during a continuation of bad weather that permitted no observations, I had occasion to call the radio compass stations at Hatteras and Lookout for bearings. Prior to this we had been drifting for over 12 hours in a heavy gale while the engineers rectified some of the builders' shortcomings on the engines. Under these circumstances my reckoning was quite uncertain, so I called the radio stations, and at 2.17 p. m. February 2 received two bearings that showed a dead reckoning position 23 miles in error. With lead flying and fog-whistle blowing, I stood in for Diamond Shoals Lightship, taking my department from the radio bearings. After running six hours, without change of course, I had to pull out sharply to avoid running the lightship down. I could not see her, but I had the whistle close aboard. It might be added also that some of our insurers had blown out, so we were working with reduced power and home-made vibration, which made our spark pretty weak. I wish to extend my thanks for your service generally, and the operators at Lookout and Hatteras, particularly, for so promptly and accurately answering my call."

Steamship *Barbadian* (Feb. 13, 1922): "I again thank you for the courtesy and promptness offered to shipmasters at all times by the coast radio stations. I hope that you will extend my heartfelt gratitude and best wishes to the navigators of Cape Henlopen and Cape May for their prompt and excellent services."

Steamship *Tamiahua* (Feb. 17, 1922): "I am writing to let you know that I obtained radio compass bearings while in the vicinity of Cape Hatteras from January 30, and again from February 6 to 8. Bearings were obtained at frequent

Island, Virginia Beach, and Poyners Hill. Found position to be $1\frac{1}{2}$ west of dead-reckoning position. We therefore hauled more to south steered S. 20 W. (true) for Cape Charles Light Vessel and picked up bearing at 5.25 p. m. was 2 miles in error toward the westward, as to pass a mile to the eastward of Cape Charles Light Vessel. However, had the effect of making us haul to the southward. Had we held on our previous course, S. 46 W. (true), we would have gone 1 mile east of Cape Charles Light Vessel. A test bearing was taken from the three stations while passing Cape Charles Light Vessel and found to be correct. Then steered from light vessel toward Cape Henry No. 1 buoy; weather thick; visibility about $1\frac{1}{2}$ miles, and did not see the light alongside of it, the glass of the light appearing to be dulled to with frost or snow, as the light showed clearly on the south side."

Steamship *Santa Isabel* (Apr. 10, 1922): "Bearings exactly correct. Lead was dropped in 19 fathoms, and Barnegat Lighthouse bore from ship at time of radio bearings. A course of 348° true was set between Scotland Light Vessel and Ambrose Lightship. Everything in nicety. Weather calm, overcast, hazy. The master was unaware of his position up to the time the radio bearings were requested. Lighthouse was observed at the same time the bearings were received."

The following radiograms were received from ships:

(a) The adoption of the 500-cycle quenched-gap spark transmitter as standard for spark transmitters. (This change was made many years ago when there were comparatively few transmitters in service, and the change, therefore, involved only slight additional expenditures.)

(b) The introducing of arc transmitters into the service for long-distance work. The introduction of these transmitters into the Naval Service really constituted their introduction into the United States. This type of transmitter is gradually developed, under the auspices of the Navy, from 30 to 1,000 kilowatt power, arc converters up to 500 kilowatts being installed in naval high-power stations, while 1,000 kilowatt arcs have been installed by the Navy in Lafayette Station in France.

(c) The development of uniwave signaling systems for arc transmitters of powers from 30 to 1,000 kilowatts.

All arc transmitters up to and including 100 kilowatts have, or are now being, provided with uniwave signaling systems which were developed and perfected by the Navy, as the manufacturers had not succeeded in producing a reliable system.

The 200-kilowatt arc at San Diego has been equipped with a uniwave signaling system by the Federal Telegraph Co. acting in conjunction with the Navy.

Investigations and developments are under way by the Navy which it is expected will shortly result in the equipping of the stations up to 500 kilowatts with uniwave signaling systems.

This uniwave system, as is well known, suppresses the useless compensating wave which only serves to cause unnecessary interference.

(d) The development of a system for use with all arc transmitters to suppress "mush" and harmonics which cause needless interference.

A system has recently been developed by the Navy which completely eliminates "mush" and harmonics, this system already having been installed at the 200-kilowatt station and other smaller stations and preparations being under way to install it at all other arc stations where this form of interference is troublesome.

(e) The inductive coupling of arc transmitters to increase their efficiency is enabling two transmitters to function simultaneously at the same station.

This system was developed solely by the Navy in connection with the auxiliary 30-kilowatt arc transmitter at the San Diego high-power station. Similar installations are now under way at a number of other shore stations where the requirements of the service justify the necessary expenditures.

(f) The development of the "current transformer" circuit for use with arc transmitters, thereby increasing their overall efficiency approximately 50 per cent.

This circuit was developed by the Navy and has been installed at a number of stations, particularly the low-power ship stations.

(g) The development of high-speed signaling systems for use with low and high-power stations. The Navy has developed a type of key for use with high-power stations which enables sending to be carried on at the rate of 200 words per minute, whereas the keys furnished by the Federal Telegraph Co. with high-power arcs were limited to speeds of 60 words per minute and give considerable trouble even at speeds of 20 to 25 words per minute.

A telegraph type of recorder has been developed by the Navy to such an extent that reception of traffic can now be carried on fairly satisfactory at speeds up to 60 words per minute. Further experiments are actively under way, however, with a view to making this or other types of equipment reliable and satisfactory up to at least 100 words per minute. In this connection it is interesting to note that the Radio Corporation of America contends that reception up to 40 words per minute is all that can be expected for economical operation for the present.

(h) The conversion of 500 cycle spark transmitters into tube transmitters. Work has progressed to the point where sets have been completed and are now to be tested in actual service. If these tests prove successful, it will be found practicable to convert all present spark transmitters into tube transmitters at only a nominal cost and avoid the scrapping of this expensive apparatus.

(i) The development of tube transmitters up to 10 kilowatt capacity, in conjunction with private manufacturers and the inauguration of this type of equipment into the service, in limited quantities, for radio telegraphy and telephony. Fifteen tube sets of 2½ kilowatt input and 750 watts output have

been provided and are being installed in addition to numerous similar (CW 936), which have long been in use.

(j) The development of improved porcelain insulators, in conjunction with the Ohio Brass Co. for use at all stations, particularly at high-power stations. One of these types of insulators (SE 1701) has been made by the Army for use at all of their shore stations.

(k) Improvements to receiving tuners to increase their selectivity and increase their range. Receivers having ranges up to 30,000 meters are in service. Various improvements have recently been made to the various methods of shielding and improvements to the circuits which have resulted in a much more selective receiver than was available for use only five years ago.

(l) Inauguration of the vacuum tube in general service as a detector, practically eliminating entirely the crystal detectors. This advance was made possible owing to the comparatively low cost of the complete vacuum tube.

(m) Development of multistage amplifiers to such an extent that signal strength may readily be increased in intensity at least 400 times over that obtainable with a single tube detector.

(n) Development of selective types of receiving equipment and methods of operation such as the "antenna-barrage" circuit which eliminates interference including static, entirely under favorable conditions and decreases the effect of interference under less favorable conditions.

As a result of the development of this method of reception, together with improved insulation of the antenna at Cavite, signals are now regularly received at San Francisco direct from Cavite, even during the summer static season, at a distance of nearly 7,000 miles.

(o) Development of the underground system of reception. While this system has not proved feasible for general service use, it is sometimes useful in local electric storms are in progress in the immediate vicinity of the stations and thereby helps to insure the continuous operation of the stations under the most trying circumstances.

(p) As a result of the development of satisfactory porcelain insulators for low, medium, and high-power shore stations, which have greatly increased the efficiency of these stations, these types of insulators have been made available for all stations and will gradually supplant the electrose insulators. As available funds will permit this complete change to be made.

(q) The development of loop antennas for directive reception and elimination of interference. This type of collector, used singly or in conjunction with overhead or underground antennas, has been of incalculable benefit to the naval communication service.

(r) The development of the radio compass and the establishment of a complete chain of radio compass shore stations as aids to navigation and for the purposes of national defense. This development and utilization of the radio compass on a large scale is a distinctive accomplishment of the Navy and is not likely to be fully appreciated during the present generation, either as an aid to navigation or for purposes of national defense.

(s) The development of the "radio piloting" cable, by the use of which vessels are enabled to enter port and arrive at their moorings during thick fog. This system was developed and successfully demonstrated by the Navy, whereupon it was turned over to the Department of Commerce as coming under their cognizance in so far as its practical use was concerned.

(t) Development of improved wavemeters, introduced the French method of tuning into the service as a standard and inaugurated methods whereby all wave lengths are checked periodically by distant monitor stations to insure their proper tuning and selectiveness, thereby making the general service more reliable and reducing interference.

(u) Developed two types of radio automatic relays by the use of which signals are received at distant stations and automatically retransmitted to distant stations. One type of automatic relay known as the fanning relay is in satisfactory service in the Hawaiian Islands. And additional units are being manufactured for installation at Guam, San Francisco, and San Diego. These relays are installed, traffic can be handled between Washington and the Islands direct in both directions, also time signals and other broadcasting signals may be simultaneously carried on from various distant high-power stations. Another type of automatic relay, developed at the Naval Aircraft Station, Anacostia, is now about to undergo tests at Key West to automatically relay time signals, thereby eliminating the use of land wires between Key West and Key West.

(r) Developed and inaugurated a system of remotely controlling shore stations for duplex operation by establishing separate receiving stations and utilizing land wires thereby increasing the traffic capacity of the stations at least 100 per cent and enabling several transmitters and several receivers of function at the unit at one time. All high power and district center stations have been so equipped as have also the most important coastal stations.

(rc) Erected permanent self-supporting 600-foot steel towers at all permanent high-power stations. The temporary wood masts installed at all other stations are gradually being replaced by self-supporting steel towers of suitable heights at such times as the life of the wood masts have been reached and when it is definitely determined that the station will be retained permanently in the chain of stations of the Naval Communication Service.

(r) Erected concrete power houses and operating buildings or buildings of other permanent types at all high-power stations. The temporary frame buildings erected at other stations are gradually being replaced by permanent buildings under the same general conditions as those applying under (rc).

A very great many other improvements of a more minor nature have been made or are under investigation or under way in connection with shore stations of the Naval Communication Service to improve the general efficiency of the stations, to insure their maintenance in condition for continuous efficient operation, and to decrease the cost of maintenance and matériel operation.

These improvements cover in general decreased antenna and ground resistance, improved insulation, adequate and reliable power supply, increased range, selectivity, reliability and flexibility of transmitting and receiving apparatus, adequate and reliable control and communication lines where required, the economical preservation and expansion of the various plants and the establishment of new stations where required, and the furnishing and maintenance of suitable facilities for the health and comfort of the personnel quartered at the stations.

As indicated in the foregoing, however, it should always be borne in mind that the chain of shore stations of the Naval Communication Service comprises a very extensive system of communication, navigational aids, and facilities for national defense, and this system is now meeting the requirements of the Atlantic, Pacific, and Asiatic Fleets and their auxiliaries as well as those of the American merchant marine.

SHIP RADIO STATIONS.

Review of radio alterations during the past two years and the requirements for the coming year.

All radio alterations and improvements made during the fiscal years 1920-21 and 1921-22 were the results of lessons learned during the World War and the adoption by the Navy of the latest forms of equipment and methods of operation. These improvements have been undertaken from year to year as funds have been available and as the new equipment has been designed and completed by both naval experts and commercial companies.

The need of the best possible radio communication in our fleet is of the utmost importance, taking equal rank with gunnery and engineering requirements. Every commander in chief of our fleets has emphasized the great importance of having the latest radio equipment, and this point has repeatedly been stressed by various allied naval commanders.

During the past year the old battleship *Ohio* was used as a radio experimental and research ship. As a result of problems solved by radio experts on this vessel, the bureau derived some very valuable data, with the result that improvements in transmitting and receiving apparatus were made in the active fleet.

There remains to be accomplished for the next fiscal year, 1923, the installation of new equipment on vessels in active service on which there has been no opportunity to do this work, either on account of lack of funds or because the vessels have not been available. The use of vacuum tube transmitters is becoming general throughout the world and this requires the conversion of the present spark sets now installed on all ships. This applies especially to submarines whose low-power spark sets have never given satisfactory results. Using a tube set the radio range of submarines will be increased about five times, or given in miles from 75 to 400 miles. In addition submarines are being equipped with aërials and receivers of such type that receiving under water will be practicable and transmitting without the submarine coming fully to the surface will be possible.

Sound (listening devices).—The main efforts for the past two years have been to develop and test a standard type of listening device equipment for each type of naval vessels, for detecting the presence of submarines. This proved most necessary during the World War.

The bureau is now ready to install this apparatus, which is of a confidential nature, on several destroyers and a few battleships.

AFTER RECESS.

The subcommittee met, pursuant to the taking of a recess, at 2:15 o'clock p. m., Senator Page presiding.

STATEMENT OF REAR ADMIRAL THOMAS WASHINGTON, CHIEF OF BUREAU OF NAVIGATION.

BUREAU OF NAVIGATION.

TRANSPORTATION AND RECRUITING.

Senator PAGE. Turn to page 10, Admiral, Bureau of Navigation. And please confine your remarks to those things which you want increased.

Assistant Secretary ROOSEVELT. Page 11, line 7, is the first one, is it not, Admiral?

Admiral WASHINGTON. Yes, sir; that is "Transportation and recruiting."

The estimate submitted by the department, and which the Director of the Bureau of the Budget approved, was for \$6,000,000, and that was based on the needs of a Navy of 86,000 men.

Senator NEWBERRY. I do not know whether you want us to interrupt as you go along, or do you want to get through first? I want to call your attention to the Budget.

Senator HALE. The Budget estimate was based on 106,000 men, was it not?

Admiral WASHINGTON. It was cut down from \$7,274,000; it was reduced. After the bureau estimate of \$7,274,000 was submitted to the department, supplies and accounts furnished data showing that the average cost of discharged men had increased from some \$39 to \$62.70. Hence the bureau estimate for 106,000 men should have been about \$8,000,000. For 86,000 men the bureau estimate was \$7,244,000.

Senator HALE. It was cut down by you?

Admiral WASHINGTON. Yes, sir; it was cut down by the department, and the bureau was willing to try to get along on \$6,000,000.

Senator HALE. That was not the Budget. The Budget never made but one estimate, and that was the original one based on 106,000 men.

Admiral WASHINGTON. That is my understanding.

Senator HALE. And that was \$6,000,000.

Admiral WASHINGTON. That was \$6,000,000.

Senator HALE. For 106,000 men.

Admiral WASHINGTON. That is all the department asked for. We estimated it would cost more than that, but we thought we might get along with that, and that is all we are asking for now, \$6,000,000.

Senator HALE. But the estimate was \$6,000,000 for 106,000, and you are now basing it on 86,000.

Assistant Secretary ROOSEVELT. I think, Senator, the Admiral will plain why there is no differential later on. If you will let him, he will prove it on his figures.

Senator POINDEXTER. I must say it is very confusing. As a starter you state two contradictory propositions—first, that it was based on 106,000, and afterwards you state it was based on 86,000. Which is it?

Admiral WASHINGTON. Senator, the amount we thought we actually needed was \$7,274,000, but later on, when it became evident that Congress would reduce the number of men below 106,000, we thought we might possibly get along with \$6,000,000. That sum was requested with the knowledge that the law permitted us to run a deficit in that appropriation, and if Congress gave us \$6,000,000 and we ran slightly beyond it we could, under the law, continue to carry on.

Senator POINDEXTER. That law still exists?

Admiral WASHINGTON. That law still exists; yes, sir. So we are only asking for \$6,000,000.

Senator HALE. But you are asking for the same thing for 86,000 men which the Budget estimated for a Navy of 106,000.

Admiral WASHINGTON. I possibly misled you there, Senator. The fact did not make any estimate for 106,000 men. We simply submitted to the department's reduction. We needed more than \$6,000,000 for transportation and recruiting, and we thought best—

Senator HALE (interposing). But that was contemplating a Navy of 106,000, was it not?

Admiral WASHINGTON. Yes; and it was not sufficient, but later we thought, as the Navy came down from 106,000 to 96,000 and later on the House appropriation brought it down to 86,000, we might get along with the \$6,000,000 for the 86,000 men, though the bureau's official estimate is \$7,244,000.

Senator HALE. Aside from what happened afterwards when the Budget estimate was made, it was made on a basis of 106,000 men, and regardless of what you estimated, they estimated \$6,000,000 could take care of a Navy of 106,000 men?

Admiral WASHINGTON. That is correct; the Budget allowed only \$6,000,000.

Senator HALE. And you are now asking for the same amount for smaller Navy?

Admiral WASHINGTON. Well, at the time when we put in that estimate of \$6,000,000 we did not know—

Senator HALE (interposing). You did not put in the estimate of \$6,000,000; the Budget Director put in the estimate.

Admiral WASHINGTON. Well, the Navy Department put it into the Budget.

Senator HALE. But it was approved by the Budget?

Admiral WASHINGTON. Yes, sir.

Assistant Secretary ROOSEVELT. Senator, could we perhaps do this: Just have Admiral Washington make out his case for \$6,000,000 for the 86,000 and see whether you think that is sufficient or too much, or anything else, regardless of what the Budget may have done?

Senator HALE. I know, but the admiral stated first, as I understood that it was based on a Navy of 86,000 men.

Assistant Secretary ROOSEVELT. Yes.

Senator HALE. I want that point cleared up first.

Assistant Secretary ROOSEVELT. The \$6,000,000 we are submit to you now is based on an estimate of a Navy of 86,000 men.

Senator HALE. And that estimate has nothing to do with Budget estimate?

Assistant Secretary ROOSEVELT. Has nothing to do with the estimate whatever. That is simply what we think is necessary for a Navy of 86,000 men.

Senator NEWBERRY. The curious part of the thing is it was the same when you made up the Budget.

Assistant Secretary ROOSEVELT. Yes.

Senator NEWBERRY. What has changed since you made up mate for the Budget which leads you now to make the same you then made?

Assistant Secretary ROOSEVELT. As Admiral Washington goes along I think that particular point will develop. It is the question of the way we were coming down, you see.

Senator PAGE. Well, Admiral, you proceed, please.

Admiral WASHINGTON. There will be 41,000 discharges due to expiration of enlistments during the fiscal year 1923. To this must be added 8 per cent of the enlisted strength who will be discharged under honorable conditions prior to expiration of enlistments. For 86,000 men this is 6,880. The total honorable discharges will then be 47,880 for an 86,000 Navy. These are entitled to transportation to homes or places of enlistment at a rate of 5 cents per mile.

The average cost per man is \$62.70. The total cost is 47,880 times \$62.70, which equals \$3,002,076.

Senator NEWBERRY. How many miles does that mean each man travels?

Admiral WASHINGTON. That would make about 1,225 miles, on the average.

Senator NEWBERRY. That is the average distance a man lives from the seacoast?

Admiral WASHINGTON. Most of the fleet now is on the Pacific coast, and if they are paid off and we haven't water transportation for them, of course we have to transport them across the continent, and anyway, whether we take them to the east coast or the west coast and discharge them from vessels there, they are entitled to 5 cents a mile to their homes or places of enlistment at interior points, and the average we find to be about 1,225 miles.

There were, for instance, 2,064 men enlisted in Boston in six months, and we try to get them as near to Boston as possible before they are discharged, and if you go through the Middle West—

Senator NEWBERRY (interposing). The trouble is that the Boston men you have do not average within 500 miles of Boston.

Admiral WASHINGTON. The average number of recruits in a six-months' period from the whole east of the Mississippi River is 39,515. And from the west the average number for the same period is 4,447 men. Consequently, it will be seen that the great bulk of recruits come from east of the Mississippi, from about 2,000 to 3,000 miles from the west coast.

We find by going over last year's record and : t
number discharged and using water transportation :

le the average was \$62.70 per man of men discharged. The men charged as noted in my explanation of item 1 must be replaced new enlistments, or by reenlistment, up to the total authorized strength. In addition to honorable discharges, about 19.3 per cent the total strength is lost, due to deaths, desertions, dishonorable charges, transfers to the Reserve Force, bad conduct and undesirable discharges, and medical survey discharges due to own misconduct. These must also be replaced.

About 68 per cent of honorably discharged men should reenlist under normal conditions and are sent direct to ships at an average of \$38.19 per man. The balance is made up by first enlistments. Recruits are first sent to training stations at an average cost of 1.12 per man, and later to ships at an average cost of \$22.71 per man.

There remain to be included in this item: (1) Transfers between ships and stations, and (2) transportation of applicants for enlistment. The cost of these combined averages, 66 $\frac{1}{4}$ cents per man per month, or \$7.96 per annum. This figure does not include transportation of sick, insane, and guards therefor, nor does it include transportation furnished men physically discharged due to own misconduct.

Those figures in total amount to \$2,961,643.62.

Now, does the committee want each item read as we go through in that way as to how we arrived at it?

Senator PAGE. I do not think we do.

Senator HALE. I think we do.

Assistant Secretary ROOSEVELT. I should think we do; yes.

Senator HALE. There are 14 items, are there not?

Admiral WASHINGTON. Yes; in the hearings. Twelve items in the estimates sent to the Budget. In the estimates for 65,000 men given to the House committee, items 1 and 2 were subdivided into four items for purposes of clarity.

Assistant Secretary ROOSEVELT. Let me summarize just that point. We lose 64,000 men next year out of the 86,000 men. In other words, we have to reenlist 64,000 men next year for the 86,000 Navy. That is the figure to bear in mind.

Senator NEWBERRY. Enlist or reenlist?

Assistant Secretary ROOSEVELT. Enlist or reenlist; first enlistment or reenlistment.

Senator HALE. You speak of the 47,000 men you are going to discharge before July 1; is that right?

Assistant Secretary ROOSEVELT. No; during the year.

Admiral WASHINGTON. They will stretch along during the entire year.

Senator HALE. The plan was to discharge 17,000 ahead of time.

Assistant Secretary ROOSEVELT. Peremptorily, right away.

Admiral WASHINGTON. Yes, sir.

Senator HALE. That will not be done now?

Assistant Secretary ROOSEVELT. Naturally not.

Admiral WASHINGTON. No, sir. For those 17,000 men that the committee of the House appropriation committee intended we should discharge prior to the 1st of July Mr. Kelley cut the appropriation down one million sixty-five thousand odd dollars, and that induced this bill by that amount.

Senator HALE. Cut it out of next year on the ground it should be a deficiency next year?

Admiral WASHINGTON. Yes, sir; a deficiency for the present year. That was his understanding. I have a statement here which covers that. When the House Appropriation Committee was hearing estimate for "Transportation and Recruiting" the estimate was based on only 65,000 men being in the Navy on July 1, 1922, and the presumption that about 3,000 men would be lost normally between the date of the submission of the estimate on March 17 to June 30; and that 17,000 additional men would be discharged prior to June 30, 1922, thus reducing the estimate of \$5,218,000 by 17 times \$62.70, or \$1,065,000. The House committee also cut out the estimate for transportation of civilian officers and men of naval auxiliary which was only a nominal sum of \$500. All other items were accepted by the House committee and are included in the bill as passed the House. The increase of from 65,000 to 86,000 brings the estimate up to a much larger amount, and also increases Item 1 in addition to the \$1,065,000.

That was stricken out on the supposition this reduction of 17,000 men would take place prior to June 30. However, we cut the estimate for 86,000 men to \$6,000,000, although the computations in the bureau show that the actual cost might prove to be over \$7,244,000.

MEN DISCHARGED BY MEDICAL SURVEY.

The next item is men discharged by medical survey for physical disability due to their own misconduct. They averaged 0.0022 of the average strength of the entire Navy.

For a strength of 86,000 men this equals 189 men, and the cost is 189 times \$3.19, which is \$7,217.91.

TRANSFER TO TUBERCULOSIS HOSPITALS.

And the fourth item—based on best available figures 0.69 per cent of the average strength—

Senator HALE (interposing). You are not taking these in the order in which they appear in the hearing.

Admiral WASHINGTON. I am taking them in the order in which they appear in our bill. I do not know how they appear in the hearing. I have them here as they appear in the bill.

Senator NEWBERRY. They go into your item of \$6,000,000?

Assistant Secretary ROOSEVELT. Yes.

Senator NEWBERRY. They are not in the bill in detail?

Admiral WASHINGTON. No; they are not in the bill in detail.

Based on the best available figures, 0.69 per cent of the average strength are sent to tuberculosis hospitals located at 11 different places in Colorado. The average distance from East and West coast ports to these hospitals is 593 miles, which at 5 cents per mile gives an average fare of 2.965 cents, or 3 cents. For a strength of 86,000, the cost is 593 times \$80, or \$47,440.

TRANSFER TO HOSPITALS FOR INSANE.

For insane patients, who are transferred to hospitals at Santa Fe, Calif., and Washington, D. C., the average transportation including transportation of guards, is \$24.87. The item is

annually 0.0031 per cent of the average strength. For 86,000 men insane will be 0.0031 times 86,000, or 267, and the cost will be times \$24.87, or \$6,640.29.

For these two items we have a total of \$54,080.29.

TRAINING OF RESERVE FORCE.

Then the item for the expenses of travel of the reservists, giving 15 days' training per year as near as it is possible to do it, we estimate about \$300,000. That we obtain by assuming that the men will be taken from some point which is about equally distant, according to the way in which they are scattered through the States, the nearest seaport, and there we will have vessels meet them. In places like Boston, New York, and Philadelphia we make no allowance for reserves living in the cities proper. The estimate for this item was \$300,000, and was approved by the House committee, and is included in the appropriation passed by the House.

TRANSPORTATION OF CIVILIAN EMPLOYEES ON AUXILIARIES.

The next item was stricken out by the House Naval Subcommittee of the Appropriations Committee. That was \$500 for the transportation of civilian employees on the auxiliaries. It was desired to retain the wording of this item in the bill in case it should be found necessary to employ civilians on this duty, consequently a nominal sum was named of \$500. That is not of material importance, and so we do not request to have it reinserted.

PURCHASE OF RAILWAY GUIDES.

The seventh item is for purchase of railway guides for all recruiting stations at \$12 each, and for the payment of transportation of civil officers delivering deserters, etc., and that amounts to a total of \$105,820.

Senator NEWBERRY. And the railway guide is \$3,000?

Admiral WASHINGTON. \$3,000 for the railway guide, Senator, and the other items combined with it under that heading.

Senator HALE. In the House you combined both and \$3,000 was the total for the two.

Admiral WASHINGTON. Pardon me. I read item 8 also; \$3,000 for the railway guides.

Senator HALE. Railway guides and the apprehension and delivering of deserters?

Admiral WASHINGTON. Yes, sir; that is correct, and I commenced on item 8, not noticing I had stepped over.

RECRUITING SERVICE.

Item 8 is for recruiting service. For the recruiting bureau we estimate \$69,000.

We have to recruit at least 31,000 men this year, in addition to a large number of reenlistments, and all our stations are closed with the exception of 32. We had 430 when we were in full operation for recruiting purposes, and we want to restore probably more than

Admiral WASHINGTON. I was not present when that was done.
Senator NEWBERRY. You cut it down \$32,000, and all you got for that sized Navy was \$105,000.

Admiral WASHINGTON. \$105,820. That is what we stand on, sir, because we will try to get along on it.

Senator HALE. I thought you said it was \$65,000.

Admiral WASHINGTON. No, sir; we estimated the actual cost to be \$138,000, but we thought we could save \$32,000 on it, and cut it down to \$105,000.

Senator NEWBERRY. You will not have as much recruiting for a Navy of 86,000 as for a Navy of 106,000.

Admiral WASHINGTON. Senator, we will have to do a great deal of recruiting, because so many of the long-time men have died now. We opened the gates, you know, last year, along all the summer, December, and January, and let many of them go out.

Senator HALE. And everybody now is a four-year man?

Admiral WASHINGTON. Everybody now is a four-year man since ner.

Senator NEWBERRY. I do not understand why you would need to do much recruiting to keep the Navy at 86,000 as you would to keep 106,000.

Admiral WASHINGTON. You probably would not have to do as much recruiting, but having reduced to 86,000 we have let a good many of those go whom we would not have had to recruit; great numbers of long-time men went out in December and January, thereby increasing the percentage of short-time men now in the service. Senator NEWBERRY. It was on the 21st of March when Captain Williams testified on the estimates of the Navy Department that it would cost \$105,000 to keep the recruiting up to the figure they had, if it is going to be 20,000 less than that I assume it will cost a good deal less to do the recruiting. But you said a while ago you would do more recruiting.

Admiral WASHINGTON. We may have to do more recruiting, because so many of those two-year men are going out, Senator, and we have not held on to the men of later dates. Practically all of the two-year enlistments will expire in 1923—practically all of them—and their places have to be refilled. We estimate 31,000 of them as coming in. That is on a basis that 68 per cent of the honorably discharged men will reenlist. That, however, is all guesswork, while it was correct for the last normal 12-month period, it may hold good during the next 12 months. The cost of recruiting depends so much on the number of men to be recruited as well as on the intensity of effort necessary to recruit one man. Important conditions have great weight.

Senator POINDEXTER. How many enlistments will expire in the year 1923?

Admiral WASHINGTON. Forty-one thousand.

Senator POINDEXTER. You reduce that to 31,000 by making allowance for those who reenlist, is that the idea?

Admiral WASHINGTON. No; 41,000 expirations of enlistments; there are 8 per cent discharged upon requests of their friends and relatives for dependent and other reasons, and, then, about 19 per cent for medical discharges, desertions, deaths, and other causes, as well as to the Naval Reserve Force, bad-conduct discharges, and honorable discharges. They bring the total up to 64,000.

Senator Secretary ROOSEVELT. That is the figure to bear in mind. The contracts for the various people with the Navy the Navy has of its 86,000 during the next year 64,000 and some few hundred which have to be replaced either by reenlistment, which we figured will take care of about 32,000, or by recruiting new men which we figure roughly will be 32,000 also. So we have, first, the item of necessary travel expenses, provided by law for 86,000 men who reenlist. That item is \$1,300,000, or something like that, and, then, the necessary travel provided by law for the 32,000 or 31,000 who come in and are new men and go to the recruiting station. That makes \$1,700,000 more, and those two items put you off with \$3,000,000 of the \$6,000,000, and it is some-

thing you can foresee pretty definitely and it is all something that is provided by law. That furnishes you with the nucleus from which you have to start on your basis. Then, the other items are the ones Admiral Washington has just added.

Senator HALE. Admiral, I would like to have this matter cleared up in reference to estimates. At the hearings of the House here is a statement made by Captain Williams.

Senator NEWBERRY. What page?

Senator HALE. Page 695 of the House hearings. Mr. Kelley asked:

The first item under the Bureau of Navigation is Transportation and Recruiting. How much are you asking for Transportation and Recruiting for 1923?

Captain WILLIAMS. For 65,000 men?

Mr. KELLEY. Yes.

Captain WILLIAMS. The modified estimate, the best I can submit at the present time, is \$5,218,175.54. That item is made up as follows:

He then gave 14 items showing how the total is made up.

Item 10. Expenses of recruiting for the naval service, \$105,820.

That was estimated for a navy of 65,000 men. Those are the exact figures that you now estimate for a Navy of 86,000. Does the size of the Navy make any difference?

Admiral WASHINGTON. Senator, if we had made estimates on the basis of 65,000 men right down the line, as probably we should have done, most of the items necessarily would have come down, but the items for recruiting had already been cut to a minimum, even if we only had to recruit 15,000 or 20,000 men. We therefore made no reduction in our recruiting estimates.

Senator HALE. But Captain Williams stated this was for a Navy of 65,000 men.

Admiral WASHINGTON. We make no difference in it. We have \$105,000 for each case. I have never accepted Mr. Kelley's belief in this. Senator, that we could get down to 65,000 men by July 1, 1922.

Senator HALE. But this is not Mr. Kelley; this is Captain Williams.

Assistant Secretary ROOSEVELT. Perhaps we can handle that by saying this item is sufficient for 86,000 men.

Senator HALE. I want to know why if this item is sufficient for 86,000 men it is not more than sufficient for 65,000; does not the size of the Navy make any difference?

Admiral WASHINGTON. No, sir; not in this case; because we had already reduced our recruiting items to the absolute minimum.

Senator HALE. That has nothing to do with it; the size of the Navy has nothing to do with it?

Admiral WASHINGTON. Not to speak of; but the recruiting items have been cut to the absolute minimum even in our original estimates.

Senator HALE. That is, 20,000 extra men would not amount to anything?

Admiral WASHINGTON. If we found we needed a little more we would take it out of some part of this appropriation to a slight excess in; if we had a little too much in any could use it for some other purpose under the same estimate. If we did not, therefore, consider it necessary to change estimate.

Last August we submitted for a Navy of 106,000, \$1,000,000 recruiting expenses. We submitted the same figures for:

Senator POINDEXTER. And the same for 65,000?

al WASHINGTON. Yes, sir; the reason was that the bureau of \$7,274,000 had already been cut to \$6,000,000 by the debt. The items for recruiting were already as small as thought make them.

or POINDEXTER. All the same from 106,000 down to 65,000?

al WASHINGTON. It will not make any difference. That is minimum, and I may state that for the fiscal year beginning 1916, for a Navy of only 53,000 men, a pre-war appropriation Congress appropriated was some \$248,000, which is about now ask for 86,000 men.

or HALE. Just what is that item of \$105,000 for?

RECRUITING BUREAU.

al WASHINGTON. First, for recruiting bureau, next for particular activities, and for miscellaneous publicity.

or NEWBERRY. Exactly what is a recruiting bureau? What does it mean?

al WASHINGTON. That is the publicity headquarters of the Navy service.

or NEWBERRY. Do you mean rent?

al WASHINGTON. No; the rents are further down on the list.

or NEWBERRY. I know, but what is that \$69,000?

al WASHINGTON. I will give you the items in it.

or HALE. If you will excuse me, I wish you would give the items that \$105,000.

or NEWBERRY. It is on the top of page 714.

al WASHINGTON. The \$69,000 is made up of the expenses of the recruiting bureau, \$5,800 a month or \$69,600 a year.

or NEWBERRY. That is not very illuminating.

al WASHINGTON. I will give the items: Rent, \$1,041.60.

or NEWBERRY. It can not be rent, because that is in another

al WASHINGTON. We have classed it here as rent.

or NEWBERRY. I call your attention to the fact rent is in item 131,000; now here we have one for those recruiting bureaus.

al WASHINGTON. What you refer to is rent for recruiting

or NEWBERRY. What is the difference between a recruiting bureau and a recruiting station?

al WASHINGTON. The bureau is recruiting publicity headquarters; they do not do any recruiting there.

or POINDEXTER. How many of those places are there?

al WASHINGTON. One.

or NEWBERRY. Where is that?

al WASHINGTON. New York.

or HALE. This \$105,000 is all for New York, is it?

al WASHINGTON. No; the \$69,000 is for New York.

or NEWBERRY. The \$69,000 is all for a place that does not do recruiting?

al WASHINGTON. Yes, sir; it is the headquarters of the Navy publicity service, Senator. It is where all of our information comes out from. We do not send it out from the Navy Department. It is all handled from the New York recruiting bureau

Senator NEWBERRY. And the expenses of that headquarters are \$39,000?

Admiral WASHINGTON. Yes, sir; I will read the items that that covers.

Senator NEWBERRY. All right.

Admiral WASHINGTON. The incidental expenses, supplies, and maintenance of the office, \$958.33.

Senator NEWBERRY. A year?

Admiral WASHINGTON. That is per month.

Allowance for various expenditures incapable of classification such as films, paper, ink, plates, etc., \$3,800.

Last year the actual expenses of the recruiting bureau, the cost of the month of July being estimated at that time, were \$121,788.691 being spent during the first half of the fiscal year, during which period the activity in the recruiting service was great \$43,000 being spent during the last six months, when active recruiting had been slowed down.

Senator NEWBERRY. Why was that taken out of the Bureau of Navigation, where it belonged?

Admiral WASHINGTON. We haven't the clerical force here, sir; we haven't any room for it. When we established this office in New York it would have been an impossible situation to have gotten it in here in the Navy Department.

Senator NEWBERRY. How long ago was that established?

Admiral WASHINGTON. It has been some years back, sir. We haven't the space nor the clerical force here to handle it. We enlisted men for that purpose.

Senator NEWBERRY. \$1,000 of it for rent?

Admiral WASHINGTON. \$1,000 per month.

Senator HALE. Some of these items seem to be per month, some per year.

Senator NEWBERRY. Not on his list.

Admiral WASHINGTON. I figured all of those per month.

Senator NEWBERRY. I am just talking about the \$69,000. There is no salary. Are there any clerks there?

Admiral WASHINGTON. No clerks at all; it is for rent and cost of printing and publishing various classes and characters of recruiting literature.

Senator NEWBERRY. It has in local printing \$10,000 and postage \$9,000.

Assistant Secretary ROOSEVELT. Those are not attached to the bureau.

Senator NEWBERRY. They have to have some of their cost, don't they?

Assistant Secretary ROOSEVELT. Yes.

Admiral WASHINGTON. Do you wish to hear any other items that that is made up of?

Senator NEWBERRY. No; I do not think so.

Admiral WASHINGTON. I have them all here.

Senator HALE. Yes; I would like to get the rest of the \$

EXPENSES FEATURING PARTICULAR ACTIVITIES.

Admiral WASHINGTON. All right, sir. Now the \$2,800 expenses for featuring particular activities of the Navy.

ere are seven recruiting divisions. We have signboards, half-plates for newspapers, miscellaneous publicity, and allow \$100 quarter for each inspector. The total is approximately \$2,800 year.

EXPENSES IN MAKING AND PREPARING SIGNS, ETC.

e next item of \$9,840 is made up of manufacturing and painting boards, billboards, arrow direction signs, large wooden and station cards, car cards, signs at railway stations, etc., ex-son trucks, and at fairs, and at other public gatherings \$20 per h in each of the recruiting districts. All of the above forms of icity have been tried out in the past and found effective of re- . A total of \$9,840 per year.

nator NEWBERRY. How many recruiting districts will you have year?

lmiral WASHINGTON. Probably 41, sir.

sistant Secretary ROOSEVELT. That is an increase over what we at this moment.

lmiral WASHINGTON. The next item of \$10,000 is made for the printing of posters, dodgers, and handbills at the recruiting ons. For that we request the authority of the Joint Committee rinting. Last year the Joint Committee on Printing authorized 00.

LODGING AND SUBSISTENCE OF APPLICANTS.

next item of \$42,000 is made up of lodging and subsistence of icants. It is found necessary to furnish one or more meals and times lodging to applicants at substations before they can be to a main station for enlistment.

ator HALE. The size of the Navy would make some difference at item, would it not?

lmiral WASHINGTON. The total item, Senator, is one that will very much, according to the conditions under which we operate. is now, when we are doing no recruiting, it costs us nothing. If appen to be recruiting very widely, we may find perhaps we have restimated. You can not tell what that is going to cost us.

are mere estimates; and as we know we have got to enlist v men, we have tried to make it as nearly as possible what we t that will amount to and at the same time not to make it too

an applicant comes from some little outlying station and has no : to sleep we have to give him accommodations until the officers xamine him and then pass him on to some training station or to ship, and the estimate of \$42,000—

nator POINDEXTER (interposing). How long have these recruit- tions been closed?

lmiral WASHINGTON. Since we first stopped recruiting in Jan- 1921, we have been steadily cutting down the number of stations.

nator POINDEXTER. Have you had any trouble in continuing since that?

lmiral WASHINGTON. In continuing to keep up the number of

nator POINDEXTER. Yes.

Admiral WASHINGTON. We have been letting them go down all the time.

Senator POINDEXTER. You still have it up to 94,000.

Admiral WASHINGTON. Ninety-two thousand.

Senator POINDEXTER. You keep it up to that without any recruiting at all?

Admiral WASHINGTON. I suppose, if we start with 86,000 men July 1, we will keep this average during the year. I think it will down to 86,000 about the 1st of July. We stopped recruiting totally since November, and I think since the middle of December we have not recruited a soul, except possibly three or four men where requested.

RECRUITING AND TRANSPORTATION.

Senator POINDEXTER. How much surplus will you have in your allowance for recruiting and transportation?

Admiral WASHINGTON. From last year?

Senator POINDEXTER. Yes.

Admiral WASHINGTON. We have already had a deficiency allowed us.

Senator POINDEXTER. Notwithstanding you closed down recruiting in November and have not recruited since?

Admiral WASHINGTON. Our estimate last year was something like \$8,000,000, and we had allowed us \$3,500,000, and you remember I appeared before the committee and told you how the House had cut it down.

Senator POINDEXTER. I am taking into account the deficiency appropriation. How have you expended that, or will you have another deficiency?

Admiral WASHINGTON. We may just about be able to pull through, and possibly we will not get through. We hope to break even.

You see the law requires every one of these men discharged shall be paid 5 cents a mile to his home or place of enlistment, and we have no option in that at all. When a man's enlistment expires under the law we have got to send him home or to give him that mileage in money.

Senator HALE. If he reenlists?

Admiral WASHINGTON. If he reenlists he gets it just the same. We have no option in it. Nearly 95 per cent of this appropriation is for transportation. The recruiting part of it is a mere bagatelle: it is less than 10 per cent, probably less than 5 per cent. But the law is mandatory in the case of transportation of discharged men. If a man is discharged by medical survey or if he is discharged upon the expiration of his enlistment or discharged, as the comptroller ruled, under honorable conditions—that is, not dishonorably discharged—then, under the law, he is entitled to 5 cents a mile to his home, and that is where this appropriation comes in.

Now, if you take the honorable discharges, 47,000 of them, and multiply them by 5 cents a mile, an average of 1,200 miles, I think we figured it to be, and add the costs given in item 2, you find it foots up to what this appropriation actually is.

Senator HALE. You will start on the 1st of July with substantially 86,000 men, which is what the House provides for?

Admiral WASHINGTON. Yes, sir.

Senator HALE. During this year, until July 1, 1922, how many of the 86,000 will be discharged in all probability?

Admiral WASHINGTON. Forty-one thousand of them by expiration enlistment, 6,880 under honorable conditions otherwise, and about 2 per cent, or call it 20 per cent, of the total strength for other reasons.

Senator HALE. Making a total of how many?

Admiral WASHINGTON. Sixty-four thousand.

Senator HALE. Sixty-four thousand of the 86,000 will go out?

Admiral WASHINGTON. Sixty-four thousand of the 86,000 will probably go out. That would leave us only about 20,000 men in the Navy if we did no recruiting or reenlistments.

Senator HALE. Of those men who go out honorably discharged, how many will reenlist?

Admiral WASHINGTON. We figure on about 68 per cent. That may be an overestimate, but we figure on that.

Senator HALE. But it would only be 68 per cent of the 41,000?

Admiral WASHINGTON. Sixty-eight per cent of the 41,000 plus 10,000, or 47,000. It would be 68 per cent of that number, or about 32,000 men. An additional 32,000 would have to be recruited. They would be new men, and they are the most expensive to obtain.

Senator HALE. And that is what the recruiting appropriation is for?

Admiral WASHINGTON. Yes; and yet that recruiting appropriation is probably not more than 5 or 6 per cent of the total appropriation we ask for. The rest of it is transportation, and the law is mandatory that these honorably discharged men must have that transportation, and we have no option at all in that, and the other part of transportation would be borne by the Government where there is no Government transportation available.

Senator HALE. That was in item 1, I think.

Admiral WASHINGTON. Yes, sir; and in item 2. We can not overestimate. We have nothing to say about it beyond furnishing the necessary transportation.

Assistant Secretary ROOSEVELT. Senator Poindexter brought out a point that I think could very well be elaborated here, which is this, that last year we stopped recruiting in December. Since that time, for over half of the year, we have recruited no one at all and have been letting the Navy run steadily down in numbers, nevertheless last year we will have spent \$5,600,000 and odd. Next year we will start with 86,000 men and we will have to recruit all the year and we will therefore need more than what we had last year, or at least \$6,000,000.

Admiral WASHINGTON. The recruiting will have to be quite active at the beginning of the year and throughout the year to gain 31,000 men. That is an average of 2,600 new enlistments a month.

Senator POINDEXTER. How many discharges were there last year, including expirations of enlistments?

Admiral WASHINGTON. Last year, of course, Senator, we reduced

Senator POINDEXTER (interposing). The point I want to bring out is that the chief item of this appropriation is travel pay.

Admiral WASHINGTON. Yes, sir.

Senator POINDEXTER. Last year you had a great deal of travel pay by allowing men to be released very liberally.

Admiral WASHINGTON. Yes.

Senator POINDEXTER. Do you expect there will be as much for travel pay for this coming fiscal year as there was last year?

Admiral WASHINGTON. Yes; due to the large number of discharges of two and three year enlistments whose time runs out next year, as you remember, two years ago Congress allowed us to enlist for two-year periods, 1919 and 1920, and those men's enlistments are just now expiring.

For the fiscal year 1919-20 the total cost of this appropriation was \$10,900,000; the total appropriation, including deficiency, was \$12,000,000.

For the fiscal year 1920-21 the total cost was about \$7,700,000, including deficiency.

We stopped recruiting the 1st of January, 1921, and only took a very few men in the last six months of that year, so the total cost would have been between \$8,000,000 and \$9,000,000, that was when we had long-time men—four years—and they were not going out as rapidly as they will go out in the next year. In years 1924 and 1925 there will be fewer discharges due to the expiration of enlistments than during this coming year (1923), so the short-period enlistments of two and three years.

Senator POINDEXTER. Have you any further statement there?

Admiral WASHINGTON. There are one or two more items.

SPECIAL ADVERTISING.

Item 10, we estimate special advertising as authorized by the retary of the Navy not to exceed \$2,000.

EXPENSES IN LIEU OF MILEAGE.

Item 11, actual and necessary expenses in lieu of mileage on traveling recruiting duty, not to exceed \$2,000.

TRANSPORTATION OF DEPENDENTS.

Cost of transportation of dependents of enlisted men, \$1,000,000.

That totals what we ask for, \$6,000,000. It really totals \$7,000,000, but we only ask for \$6,000,000, because we are going to make an effort to get along on that amount.

Senator HALE. What were the additional items you put brought that up above the House estimates, given by Captain Williams, of \$5,200,000 odd?

Admiral WASHINGTON. Well, Senator, one thing would be to increase the Navy to 86,000. You know if we reduced the Navy to 65,000 we would not bring back so many of the original enlistments, which we have got to make next year. One of those original enlistments we figure costs us \$1,000 in transportation. If we enlist a man, for instance, in Omaha, to send him either to San Francisco or to Hampton, it costs \$1,000 to send him west coast or the east coast—for his training.

Senator HALE. What was the item which showed the difference?

Admiral WASHINGTON. This 65,000 Navy, Senator, was something that the department never considered possible; at least the Bureau of Navigation never considered it possible for us to reach the condition which Mr. Kelley imposed on us, and largely these figures were drafted, I will say, more at his request than from our belief that we could operate on them, because we had a Navy of 95,000, and he made really no provision for getting rid—

Senator HALE (interposing). Those are given out by the department as the figures for a Navy of 65,000, and, in many cases, they are the same as the figures you have given now.

Admiral WASHINGTON. Yes, sir; because we did not think it possible to operate on them—they were an absolute minimum—and we have held to what we had before. That is our reason for not changing. I, for instance, did not think it possible to reduce the Navy from 94,000 to 65,000 and keep it up at 65,000 with the money the House committee gave us.

Senator HALE. Then it really was not an estimate for a Navy of 65,000?

Admiral WASHINGTON. No, sir; it was not. For instance, they made no provision at all for transferring—at first they made no provision at all for transferring this large number of men who would go on the fleet naval reserve list. They provided no fund for it. I was ill during the greater part of the hearing and was absent and so did not know what their position was, and on the last day I was there and explained that feature to them and they added about \$1,800,000 to the pay of the naval reserves to accommodate the people whom they evidently thought would be transferred to class 1, C and D, to reduce the Navy from 94,000 to 65,000, bringing the Navy on the 1st of July to 65,000.

Now, every one of those men so transferred to the Reserve would be entitled to 5 cents a mile to his place of enlistment irrespective of the fact that he had been placed on class 1, C or D. The House committee did not provide for that. There were several other items they did not provide for in this bill.

They struck out, as I said, at first \$1,065,000 on the assumption we would run a deficiency again this year, and get rid of those 17,000 men before the 1st of July, and then we would start in on that date with this Navy of only 65,000.

Senator HALE. But that is included in the estimate there.

Admiral WASHINGTON. Yes.

Senator HALE. And that goes back, now, of course.

Admiral WASHINGTON. Yes; it was an impossible condition and I think they finally understood that we could not reduce to 65,000 men in two months or less. It is less than two months now. We could not reduce that much because many of these men are in China and other distant places. We can not reach them by July 1.

Senator HALE. So, really, if you added that item, you would have ve million two hundred thousand and odd dollars in this appropriation here?

Admiral WASHINGTON. \$5,200,000?

Senator HALE. Substantially.

Admiral WASHINGTON. Yes, sir; for 65,000 men, and there are one or two other items that are minor. If we have to recruit this num-

ber to keep up 86,000 men, which is 31,000, we have got to pay them transportation costing about \$53 per man; and if we discharge the 64,000, which we foresee must be the case, we have got to pay 47,000 of them the 5 cents a mile under the law, and we have no option in it. The rest of the appropriation is very small. It only amounts at the most to probably \$600,000—10 per cent of it.

As I said before, there is not any part of this transportation in which we can spend a cent extravagantly, because the law entitles a man to just so much and that we have to give him, and if we do not give it to him on the face of the bill, then a deficiency is incurred which we would ask to have given us at the next session. The amount of the recruiting is due to the short-time men who go during the year 1923, two and three year term men.

Senator POINDEXTER. Is that all you have?

Admiral WASHINGTON. That is all I have on that subject.

Senator POINDEXTER. Have you anything else you want to present?

Admiral WASHINGTON. Yes, sir.

GREAT LAKES TRAINING STATION.

The next item that we ask for is an increase in the Great Lakes Training Station from \$160,000 to \$200,000.

Assistant Secretary ROOSEVELT. Page 15, line 19.

Admiral WASHINGTON. It is hardly practicable to get along with that amount and carry on the schools which we hope to carry on, namely, radio and aviation schools at Chicago.

The principal item is coal, and I think an increase of \$40,000 over what the House allowed us would be sufficient to meet our needs. It is primarily for the purpose of carrying on the two schools which we can not transfer anywhere else.

Senator NEWBERRY. How many men have you there now?

Admiral WASHINGTON. We have, Senator, by the last accounts, about 400 under instruction, and the number of instructors and station crew is about 650 all told. It is probably lower than it has ever been before.

Senator NEWBERRY. Is that the radio school?

Admiral WASHINGTON. Yes, sir; radio and aviation.

Senator PHIPPS. You mean 400 men under instruction and 650 additional instructors and employees?

Admiral WASHINGTON. No, sir. They are students, instructors, and station crew occupying various billets about the yard. Ordinarily we would carry 1,200 to 1,500 men at Great Lakes. Now it is lower than it has been for many years.

Senator POINDEXTER. Have you an aviation school or radio school any place else?

Admiral WASHINGTON. No, sir; nowhere else.

Senator NEWBERRY. Do you mean aviation machinist?

Admiral WASHINGTON. They are really students of the aviation school, sir. We call them aviation machinists, and we call it the aviation school.

Senator NEWBERRY. Flying school?

Admiral WASHINGTON. Principally for learning construction of the planes and motors.

Senator HALE. Are they permanent buildings?

Admiral WASHINGTON. Yes, sir; brick and stone. I think we have practically abandoned the part of the station that was built as a war measure.

Senator HALE. How many men can you accommodate in the present buildings?

Admiral WASHINGTON. About 1,250. I think we can run it up by adding them to 1,800 or 2,000, but we ordinarily have about 1,250.

Senator PAGE. Have you decided to sell a goodly proportion of real estate there at the Great Lakes station?

Admiral WASHINGTON. Yes, sir. It has been for sale. I think, for year and more, and some of it has been disposed of. When the Aviation Bureau abandons anything it is turned over to the Yards and Docks Bureau for disposition and it is my understanding that probably 10 per cent or 20 per cent of it has already been sold.

Senator PHIPPS. Do you have radio as well as aviation at that station?

Admiral WASHINGTON. Yes, sir; radio and aviation. We have aviation and aviation machinists both under instruction in the schools.

Assistant Secretary ROOSEVELT. Right at this point, do not get the training station at Chicago mixed up at all with the other ones at San Francisco or at Hampton Roads. At Chicago it is nothing like the trade schools; that is, men who are already in. We do not use the recruits here at all.

Admiral WASHINGTON. No recruits are now being sent there.

Assistant Secretary ROOSEVELT. No recruits at all; trade schools or men already in.

Senator HALE. What was the reason for that additional \$40,000, think it was?

Admiral WASHINGTON. Coal. The principal item, Senator, was coal. That is our principal expense.

We asked Congress to give us \$321,000 for that station on a supposition that we would run it as we have heretofore for trade school training recruits. The House committee, however, just cut one-half, to \$160,000, and that so limits the operation of the station that we do not expect to be able to carry on anything more than the two schools, aviation and radio.

Senator PHIPPS. How much more do you want now?

Admiral WASHINGTON. \$40,000.

Senator NEWBERRY. You mean \$40,000 in addition to the \$160,000?

Admiral WASHINGTON. \$40,000 in addition to the \$160,000 for agency development, as we had it. We have got to increase the capacity of the schools from time to time.

Senator POINDEXTER. You say you could not carry on this instruction, aviation and radio, anywhere else if allowed the money for it?

Admiral WASHINGTON. It was estimated last year that it would cost \$60,000 to move those schools from there to any other place. They are all well established now.

Senator POINDEXTER. You have a school at Hampton Roads and a school at Chicago and another one on the Pacific coast.

Admiral WASHINGTON. Radio, they claim, can not be conducted along the coast successfully because of interference with other stations, but when we get out in the interior of the country we have less other that way.

Senator NEWBERRY. It would cost you that out there and back?

Admiral WASHINGTON. Yes, sir; it would. Senator NEWBERRY. Four hundred men, a there three months?

Admiral WASHINGTON. Six months.

Senator NEWBERRY. So you would only have each a year there?

Admiral WASHINGTON. Senator, if aviation is to be developed to any reasonable extent, increase the present number of men at those schools.

Senator POINDEXTER. Let us suppose there they change twice a year; is that right?

Admiral WASHINGTON. Twice a year; yes, men traveling 2,000 miles per man; \$53 per

Senator HALE. The radio and aviation are

Admiral WASHINGTON. The radio and aviation

Senator POINDEXTER. I just want to see how carry the men there.

Admiral WASHINGTON. All right, sir.

Senator POINDEXTER. It looks like it would

Admiral WASHINGTON. The transfer of men \$60,000. I took it up last year when I thought have to move somewhere else, and it was estimated refused to continue the appropriation it was on the mantle and transfer the material from Chicago.

Senator HALE. What need is there for an Why is it not at Pensacola, Fla.?

Admiral WASHINGTON. The one at Pensacola officers and the other is for the training of men.

Senator HALE. This is for the men?

Admiral WASHINGTON. Yes, sir; and the largely in training in the handling of material.

Senator HALE. Not flying men?

Admiral WASHINGTON. The flying schools at Pensacola, and San Francisco.

Senator NEWBERRY. It costs \$80,000 a year there if there are only two sets a year of 4 would only cost \$6,000 to move all the plant.

Senator GLASS. He said merely the material.

Admiral WASHINGTON. The material of the estimate made last year. And, of course, the interrupted for a length of time consumed in the there, and reestablishing it at some other place.

Senator NEWBERRY. It is cheaper to bring than to bring the schools to the men.

Assistant Secretary ROOSEVELT. For one year.

Senator POINDEXTER. Every year.

Assistant Secretary ROOSEVELT. No, Senator, assuming that all your men would arrive at the place it is, without any travel at all, which would

Senator NEWBERRY. If they came to the schools far away.

Senator POINDEXTER. Have you any other

NAVAL RESERVE FORCE.

admiral WASHINGTON. Yes, sir; on page 16 we have asked that Naval Reserve appropriation be increased from \$50,000 to 1,000. That \$50,000 does not really enable us to do any work for Naval Reserves, and on account of the lack of funds appropriated the last session of Congress the Secretary was compelled to practically disenroll all classes of reserves except classes 1 and 6. Now, would like very much to get enough money to continue some thing of the officers and men, at least, and keep up their interest in their work.

The Naval Reserve has been reduced at the present time to 16,206 men and 7,011 officers, and has come down from about 240,000 in 1909.

Senator HALE. What classes are left?

admiral WASHINGTON. On account of the lack of money, class 6 contains 10,879 of 16,000, and class 1, the Fleet Reserve, contains practically 5,000—4,981. So those two classes contain practically 90 per cent of the 16,000 men. The other classes (2, 3, 4, and 5) have practically been discontinued.

Senator NEWBERRY. Class 1 is really the retired list of the Navy?

admiral WASHINGTON. No, sir.

Senator NEWBERRY. And it ought not to be called a reserve force.

admiral WASHINGTON. Actually the retired list of the Navy of those men on pay.

admiral WASHINGTON. I should not consider it the retired list of the Navy.

Senator NEWBERRY. Well, are they not men who retired from the Navy and were put into class 1?

admiral WASHINGTON. It seems to me they are typically naval reserves because they are subject to call and to the naval regulations all times.

Senator NEWBERRY. So is every retired officer, but actually they are retired from the Navy at half pay.

admiral WASHINGTON. Yes; but we can call them on duty tomorrow if desired.

Senator NEWBERRY. Is not that so of a retired officer?

admiral WASHINGTON. No, sir; not under the law. You can not call a retired officer without his consent.

Senator NEWBERRY. In time of peace?

admiral WASHINGTON. Yes, sir; and those men in classes A, B, and D are subject to the call of the Navy Department for any purpose and if they do not come we can court-martial them.

Senator NEWBERRY. Can you not call any officer in the reserve force to active duty without his consent?

Assistant Secretary ROOSEVELT. You say in the reserve force?

Senator NEWBERRY. Yes; in the reserve force, class 1. You say they can be called to duty. I thought you said the reserve force could not be called to duty.

admiral WASHINGTON. These men in class 1 can be called at any time.

Senator NEWBERRY. Does the law forbid calling of any officer of the reserve force to duty without his consent?

admiral WASHINGTON. The enlistment of these men is not cancelled; they are simply transferred men. They have a status under

the law which is distinct from any other class or body of men. A man, for instance, who has served 20 years and goes in the fleet reserve does not cancel his enlistment and we transfer him to the fleet reserve. Other members of the reserve force, both officers and men, can be called only with their consent.

Senator HALE. Does he do any duty or work?

Admiral WASHINGTON. Does he?

Senator HALE. Yes; after he is in the reserve?

Admiral WASHINGTON. During the war we had them all in the active service, and since the war we have had no funds to pay them, as when we call them we have to put them on full pay.

Senator HALE. What do they get in the reserve?

Admiral WASHINGTON. Depending on the length of service, one-half or one-third pay.

Senator HALE. And they do not perform any service for that?

Admiral WASHINGTON. They have not performed any service except during the war, but since then if we had the money our intention was to call them every now and then for drills and have them keep up in every sense with the progress of the Navy.

Senator HALE. All of them have had long service?

Admiral WASHINGTON. None less than 16 years' active service, that is the lowest limit. There are 4,981 of them and 1,418 officers.

Senator HALE. Do the officers get the same proportion of full pay?

Admiral WASHINGTON. No, sir; their pay can not exceed \$1,000, and to get that \$1,000 requires at least 20 years of service.

Senator PHIPPS. That is 4,981, including 1,400 officers?

Admiral WASHINGTON. No; excluding the officers.

This amount of \$50,000 allowed us for this reserve is so inadequate that we can not do anything with it at all.

Senator HALE. This is not for those particular men.

Admiral WASHINGTON. No; this class 1 has nothing to do with this appropriation. This appropriation is entirely for the civilians, which was formerly what was known as the State militia. This amount that they allow us, \$50,000, is so small that it might almost be dropped out if it was not for the desire to carry it on. The \$50,000 which they gave use last year was one of the causes of the step which we had to take later, which was the disenrollment, and these people lost interest.

Senator HALE. Do you not think we will have to frame new laws for the Naval Militia?

Admiral WASHINGTON. Yes, sir; the department has already submitted a bill which has been introduced by the House Naval Affairs Committee.

Senator HALE. Does not this appropriation depend somewhat on what action is taken on that bill?

Admiral WASHINGTON. I think this is very important, Senator, because it does not look to me like the other bill will pass this year, and if we do not have this \$200,000 we are asking for we will have nothing to carry on the drills of those men in the different States.

For instance, we pay our share of the armories, the heating and lighting, and we use them, say, one night a week or two nights a week, and make an arrangement with the adjutant general of the particular State by which we pay for that particular night or that afternoon our share of it, and similarly we pay for the janitor service

l incidental expenses of that kind, and when you divide the \$50,000 appropriated up between the 48 States there is not much to go round.

PAY OF RESERVES IN ACTIVE SERVICE ON THE NAVAL AUXILIARIES.

Senator POINDEXTER. Out of what fund do you get the money to pay the reserves in active service on the naval auxiliaries?

Admiral WASHINGTON. They come out of Pay of the Navy. It is one of the subheads under the head of Pay of the Navy.

Senator POINDEXTER. How many men are engaged in that service?

Admiral WASHINGTON. At the present time we have 272 in the auxiliary service and about 79 aviators. That appropriation comes under the Bureau of Supplies.

Senator POINDEXTER. There is something in this bill that abolishes that, is there not?

Admiral WASHINGTON. Yes, sir.

Senator POINDEXTER. Where is that in the bill?

Admiral WASHINGTON. There is a provision on page 33, lines 21 to 24, inclusive.

Senator POINDEXTER. Are you prepared to make a statement as to the effect of that provision on the Navy and the position of the Department in regard to these reserves, or is some other officer to do that?

Admiral WASHINGTON. Yes, sir; that would come to me.

Senator POINDEXTER. Well, what have you to say about that?

Admiral WASHINGTON. Well, to go back, originally we had the naval auxiliary service, prior to the war, established about 1900, and in 1917 Congress passed an act which merged the naval auxiliary service into the naval reserve by requiring that no member of the auxiliary force should be employed unless he was also a member of the naval reserve, and at that time Congress dropped out the appropriation for the "maintenance of the naval auxiliaries," which had been carried for about 20 years prior to 1917.

There are at the present time 272 of those class 3 naval reserve officers employed in that capacity. They man the colliers, the oilers, cargo ships, and some of the other auxiliaries.

Senator NEWBERRY. Admiral, there are not 272 former members of naval reserve?

Admiral WASHINGTON. There are 61 of those who were in the old auxiliary service who are now on active duty.

Senator NEWBERRY. Yes; only 61 of those.

Admiral WASHINGTON. That belonged to the naval auxiliary service that existed prior to the breaking out of the late war. The remainder are naval reserve officers who entered during and subsequent to the war.

Now, if we do away with those officers we have got to supply their places with Naval Academy graduates, which will increase the shortage of officers greater than it is now. It is, therefore, desirable to hold onto that provision of the law, or else, under any circumstances, to take in those additional 300 Navy Academy graduates to fill these places. If we lose the services of these 272 gentlemen we will have our active force reduced at the present time from just under 1,100 by these 272, which will give us about 3,800 officers, all told, to man the Navy. The operating force of the Navy Department

now requires 5,135 line officers, and we would have, with these gentlemen taken away from us, 3,800, so that our ships would all be undermanned.

Senator POINDEXTER. What do you mean by operating force of the Navy? Do you mean the ships in commission?

Admiral WASHINGTON. The ships in commission and authorized by the Secretary to be kept in service.

Senator POINDEXTER. How about the ships that will be in commission under the provisions of the appropriation bill that we are now framing with 86,000 men?

Admiral WASHINGTON. That is what I am dealing with. For a Navy of 86,000 men we require 5,135 officers. The result is at the present time if we drop out 272 officers their places would have to be taken by those of the regular Navy and we would then have a force left to operate the combatant and other ships of 3,800 only.

Senator POINDEXTER. Aside from that, what have you to say about these 61 naval auxiliaries that are employed in the service that were in the Navy before the war? What provision is made for taking care of them?

Admiral WASHINGTON. None.

Senator POINDEXTER. How long have they been in the Navy?

Admiral WASHINGTON. They have been in the Navy for periods varying from prior to the war up to now, including the naval reserve service, to about 22 years. I think the maximum service has been about 24 years, but service may not have been continuous.

Senator NEWBERRY. They were not exactly in the Navy; they were civilian employees?

Admiral WASHINGTON. They were civilian employees.

Senator NEWBERRY. You would not say they were in the Navy?

Admiral WASHINGTON. No, sir. They are doing exactly the same duty to-day they were prior to and during the war.

Senator POINDEXTER. But not in the Navy; they were civilian employees?

Admiral WASHINGTON. Civilian employees.

Senator HALE. Now they are in the reserves?

Admiral WASHINGTON. Now the law requires they must be in the reserves. If they accept the job they must enroll in the reserves.

Senator HALE. Would it be feasible to put men trained at Annapolis in their jobs?

Admiral WASHINGTON. It would be feasible, but it would increase our shortage even greater than it is now; and as we have the ships, roughly, only three-fourths manned—that is, three-fourths of what it would be in war—instead of having a surplusage of officers we have a big deficiency, and if these reserves are taken away from us we would have a greater deficiency.

Senator HALE. So you think we need not only the 370 men at Annapolis but also the 61 auxiliary officers?

Admiral WASHINGTON. The 61 auxiliary officers would not be of so great value to us as would be the case to leave no limit on the number to be employed and leave it to the department to employ the number deemed necessary and Congress just appropriate so much money as they saw proper. It would be better to place no limit on the number we could employ than to limit us to a small number.

Senator HALE. What do you advise doing with those 61?

Admiral WASHINGTON. I should make no limit on the number to continued in employment, Senator. I should continue the condition as it now stands by striking this paragraph out, or else, if the committee sees fit, to make a special provision for the 61 by which they would be given a gratuity on discharge, as was done in the English Navy.

Senator PAGE. If I understand you, you recommend that lines to 25, on page 23, repealing this section, be stricken out?

Admiral WASHINGTON. I think this: That if it were repealed the provision would come up again next year and the year after for striking like this to be reinserted. It would appear before the committee from year to year, and it might be better and fairer to leave the situation as it now stands by making a certain provision for those 61, and my proposition would be to put them in classes C and D; after 16 and 20 years' service let them go in classes C and D, which is on one-third or one-half pay. I think, on talking to a number of them, that would be entirely satisfactory. I know it would be to many of them if not all.

Senator HALE. Then they would go out of active service?

Admiral WASHINGTON. Then they would go out of active service.

Senator HALE. Then you would have to replace them?

Admiral WASHINGTON. We would have to replace them with Naval Academy graduates. Then I hope the committee would see to commission all those graduates of the Naval Academy to fill this decrease due to the probable nonemployment of reserves on active duty.

Senator PHIPPS. How many would you get from the Naval Academy if we struck out the limitation the House has inserted?

Admiral WASHINGTON. There will be about 535 graduate, and of those 25 would be in the Marine Corps, so the line would have about 510. That would give us about 4,500 officers in the Navy on the 1st of July, and our needs amount to about 6,300 for sea and shore; 100 to fully man the ships.

Assistant Secretary ROOSEVELT. As we are going to discuss that to-morrow with Admiral Wilson, from Annapolis, coming up specially for that discussion, had we not better just take up these items this afternoon and wait for that discussion until to-morrow?

Senator POINDEXTER. I wish you would prepare a tentative amendment to the bill, embodying the recommendation as to the 61 naval auxiliaries you referred to a moment ago.

Admiral WASHINGTON. Yes, sir.

Senator POINDEXTER. Just for consideration.

Admiral WASHINGTON. Yes, sir. Shall I take up the next item?

Senator POINDEXTER. Yes.

RECEIVING BARRACKS.

Admiral WASHINGTON. The next item I have is "maintenance of receiving barracks."

Senator HALE. What page?

Assistant Secretary ROOSEVELT. Page 16, lines 18 and 19.

Admiral WASHINGTON. That is a heading which we have always carried for a number of years in the bill, and this is the first year it has been stricken out.

Senator NEWBERRY. It is not in here at all.

Assistant Secretary ROOSEVELT. You are quite right. It is to be inserted. They left it out entirely.

Admiral WASHINGTON. This is the first time it has been omitted. Heretofore we have had it from year to year.

The necessities of this are two: First, barracks are cheaper than receiving ships, and second, they are much more sanitary and are more wholesome in every way to quarter men in than are receiving ships. The ships used as receiving ships are tied up at a dock and are not well ventilated, quarters are cramped, and they have many disagreeable conditions for the men to live under at navy yards and elsewhere while awaiting transfer. We use these barracks for temporarily quartering men from hospitals waiting to be sent to some ship, awaiting discharge, reenlisted men awaiting transfer, etc. Men sent to these ships temporarily are sometimes there two or three months waiting action. Sometimes we have several hundred men waiting for discharge or transfer, convalescents, etc., and again we will have only 50 or less. It is a constantly varying condition as far as numbers are concerned. We have the barracks, and we do not ask for any money except for the maintenance of them.

Senator HALE. This is at New York, is it not?

Admiral WASHINGTON. We have a receiving ship now at New York because we have given up Bay Ridge Barracks. We had at Bay Ridge very fine accommodations, but we had to go back to the receiving ship at New York.

Senator NEWBERRY. At what barracks would you keep them?

Admiral WASHINGTON. Philadelphia, Norfolk, San Francisco, Puget Sound, and I think we would be able to use San Diego as soon as it has been opened up.

Assistant Secretary ROOSEVELT. Boston, too.

Admiral WASHINGTON. And Boston, too.

Senator HALE. Do you have barracks in all these places?

Admiral WASHINGTON. We have barracks in all these places already. You see, the barracks were built during the war and we are keeping them in order just as much as we possibly can, and even while we have no appropriation we let the men work on them and look out for them. The men are infinitely more comfortable in them and have better light and air and better sleeping and messing arrangements.

Senator NEWBERRY. Those are temporary wooden shacks, are they not?

Admiral WASHINGTON. They are temporary, but they were built to stand for 12 or 15 years, and I think with very moderate care that the men themselves can give them we can carry them longer than that. They are cheaper than receiving ships.

Senator NEWBERRY. You estimated \$100,000 originally. How much can you get along with?

Admiral WASHINGTON. Congress gave us \$50,000 last year, and we had to drop the one at Hingham and that at Mare Island already, due to lack of funds. We first asked for \$200,000.

Senator NEWBERRY. Did you put in the record the number of men who are using the barracks to-day?

Admiral WASHINGTON. At the present time?

Senator NEWBERRY. Yes.

Admiral WASHINGTON. We have less at the present time, probably, perhaps at almost any prior time, because we have been discharging men so freely.

Senator NEWBERRY. If you will put in the number of men in the barracks now?

Admiral WASHINGTON. I will put in the number as of the 1st of January.

Senator NEWBERRY. No; we had a different Navy at the 1st of January.

Admiral WASHINGTON. I will put in those we have to-day, but are less to-day than at any other time, because we have been discharging so very freely, and for that reason we have fewer now than any other time.

Senator POINDEXTER. What have you substituted for the barracks you have closed them down?

Admiral WASHINGTON. We have gone back to receiving ships. We have taken the receiving ship to Boston and we have given up Nahant. We have two buildings at the Boston Yard that I would very much to convert into barracks; they are brick and stone buildings. And we have abandoned the receiving ship at Mare Island for lack of money, and the one at Mare Island is particularly great inconvenience to lose, because it is 30 miles from San Francisco.

Senator HALE. How long do men stay in these barracks or receiving ships?

Admiral WASHINGTON. Each receiving ship, Senator, has its own crew, and that is what makes it more expensive. A barracks, however, requires practically no men; a few cooks, a master at arms or so are sufficient to maintain the barracks. The men transferred to a receiving ship or barracks usually remain from a few days to weeks.

Senator HALE. Do the men stay there on their way to the training stations?

Admiral WASHINGTON. Men are sent there from the hospitals as the doctor reports them fit for duty. If a ship is going to sail from a port and it has a number of short-time men we tell them before they sail to transfer the short-time ones to receiving barracks or receiving ships to await discharge. They do not stay there on their way to training stations.

Senator HALE. It is not for new recruits at all?

Admiral WASHINGTON. No, sir. New recruits all go to training stations. We have no new recruits there, but reenlisted men go there to await the ship on which they will serve, and they may be there for a period of a month or a day, depending on when and where their services might be needed and how quickly we can get them away. We do not keep them there any longer than is necessary.

Senator PHIPPS. Have you figured on making training stations available for receiving barracks?

Admiral WASHINGTON. We have. It is very inadvisable to mix new men under training with old men.

Senator PHIPPS. They mix sooner or later. It is like sending a boy to college; you might as well teach him to swear, because he will learn it anyway.

Admiral WASHINGTON. After he is aboard ship it is all right when you bring in a new recruit it is not the best class of society to get in to pick up his new duties and ideas of the service.

Senator POINDEXTER. What is the next item?

Admiral WASHINGTON. That is all I have until we get to the Naval Academy.

Assistant Secretary ROOSEVELT. The Hydrographic Office.

HYDROGRAPHIC OFFICE.

Admiral WASHINGTON. The Hydrographic Office I do not think is in here, sir. That amendment came up by special letter. You mean the \$100,000?

Assistant Secretary ROOSEVELT. The 100,000; yes. I thought might mention that, page 20, between lines 9 and 10, insert.

Admiral WASHINGTON. That is a letter sent by the department the other day. The department requests \$500,000 spread over a period of five years.

Senator POINDEXTER. Where is that in the bill?

Admiral WASHINGTON. It is not in the bill.

Senator PAGE. Did you not refer to page?

Assistant Secretary ROOSEVELT. It ought to be inserted on page 20 between lines 9 and 10.

Senator POINDEXTER. The Hydrographic Office is on page 20.

Assistant Secretary ROOSEVELT. That is just it.

Senator NEWBERRY. It is the suggestion of the department that it be amended by inserting?

Admiral WASHINGTON. Prior to the war, going back, say, 15 and before, we were largely dependent on the British Admiralty charts and sailing directions, and when I was chief hydrographer about five years ago we were engaged in getting out all the directories, so we are by this time independent of foreign charts in that respect. The charts, however, we were limited in the small force the Hydrographic Office has. Now, they have increased to a little less than 1,000 charts which the British Admiralty has, we have not, and that is a condition which we had to overcome at the beginning of the war. Before we the British shut down on the use of their charts we obtained many charts for our own ships for that reason. I was in a whip hand absolutely. Since then we have been pushing as rapidly as possible to reproduce all of the charts, not copyrighted, you know, and any nation can get a copy of our charts. They are free for all.

We estimated that with \$500,000 spread over a period of five years we could make our Navy and our shipping in no way dependent on outside sources for charts of the world. This thing or dependency on the British is so marked that one of the agents of the British Admiralty in London showed to an American shipping agent in London and had entered in my notice, to my recollection, the fact that the American

erican shipping were dependent on them for charts of over 1,000
es, ports of the world.

enator HALE. I suppose they use a certain number of our charts?

Admiral WASHINGTON. Other nations reproduce ours the same as
do theirs, so that when war breaks out they need not ask us
anything; and if this process is carried on by us for five years

r it will render us absolutely independent of them, as by that
we will have all charts of the world on our plates.

Senator HALE. Have you ever done any of it?

Admiral WASHINGTON. A great deal of it. When I was in the
ydrographic Office I think we were dependent upon foreigners in
neighborhood of 3,000 or more, and we have reduced that now to
han 1,000, which we should have.

Senator HALE. So that comes under the general appropriation for
e Hydrographic Office?

Admiral WASHINGTON. Yes, sir.

Senator NEWBERRY. The Navy would be just as good as it ever
if you did not do it?

Admiral WASHINGTON. No, Senator. At the beginning of this
r we did not have charts to send our ships to many foreign ports,
t for only English ports but Norway and Holland and many ports.

Senator NEWBERRY. Do you know how many charts we have in
Navy now and the Shipping Board?

Admiral WASHINGTON. I am speaking now of our merchant ships
it had cargoes for Europe and directed to proceed to European
rts and were held back because they did not have charts of many
the ports they were to proceed to.

Assistant Secretary ROOSEVELT. It is the copper plate.

Senator NEWBERRY. We have all the charts in the world and all
charts the British publish in all the quantities we want if we
nt to buy them.

Admiral WASHINGTON. No, sir; not at all.

Senator NEWBERRY. What prevents us buying them?

Admiral WASHINGTON. We could buy them if we had the funds
the charts were for sale; but during the war the sale was stopped.

Senator NEWBERRY. I say to-day we have all the charts in the
rld in any quantity we want to pay for.

Admiral WASHINGTON. The appropriation is limited; we are only
e to buy about 20,000 a year.

Senator NEWBERRY. I mean that Congress wants to pay for.

Admiral WASHINGTON. If Congress will give us the money.

Senator NEWBERRY. You can buy them all. About 1,100 of them
obscure and very seldom used.

Admiral WASHINGTON. Not necessarily.

Senator NEWBERRY. All the main charts the Navy Department has
roduced.

Admiral WASHINGTON. They are making them to cover all the
ts of the world.

ator NEWBERRY. In the last 15 or 20 years the Hydrographic
ce has produced the main English charts, have they not?

Admiral WASHINGTON. Yes.

Senator NEWBERRY. And the 1,100 are those not used much, are
y not?

Admiral WASHINGTON. I would say in general not so much used, but at the same time foreigners are making new charts which we have not got all the time, and those new charts should be copied on plates, and when you have once put a chart on our plates it costs say, 30 cents on an average; from 20 to 30 or so cents; and we have to pay the British anywhere from 2½s. to 5s. per chart.

Senator PHIPPS. Why is it necessary to have hydrographic engineers and cartographic engineers at \$4,000 a year for doing copy work?

Assistant Secretary ROOSEVELT. You see, we do two things. Senator NEWBERRY. He has it in this \$100,000. They do not any surveying work for that \$100,000.

Assistant Secretary ROOSEVELT. I thought you were talking about the other part of the appropriation.

Senator NEWBERRY. No, I am talking about this. Here he has all kinds of people.

Senator PHIPPS. It is a beautiful estimate rounded out to \$100,000. I must say I admire the man who did it.

Admiral WASHINGTON. These are people to work on the manufacture, etc., of those new charts.

Assistant Secretary ROOSEVELT. That the Hydrographic had better testify to, but to begin with it is not an awful lot to copy a complicated chart accurately on a copper plate.

Senator HALE. I thought they put it on zinc.

Admiral WASHINGTON. The original chart is made on paper. When they copy a chart it is first photographed according to certain dimensions as they want to reproduce it, and then the negative is put over a zinc plate, and it is produced on this zinc plate like an ordinary personal photograph would be, and after that it is put in a printing press and rolled out at a rate of 500 or 1,200 feet per hour.

Senator HALE. You furnish these charts to the merchant service as well?

Admiral WASHINGTON. Yes; most of our stock of charts goes to merchant service. An outfit for a warship when it is first commissioned practically remains with her for three or four or five years, with slight changes when worn out. With a merchant ship they will constantly be buying new ones. They wear them out in service, you know.

Senator HALE. Then really this appropriation takes care of it now in what you get back from the merchant marine, does it?

Admiral WASHINGTON. It would all in time be repaid to the Treasury. The Hydrographic Office, I think, turns back to the Government some \$40,000 or \$50,000 a year from the sale of charts and books.

Senator HALE. And from this particular thing you would probably get back more than the \$100,000 you put out?

Admiral WASHINGTON. Yes; in the course of time it would be repaid, and it would be a constantly increasing income from year to year. I think about \$40,000 or \$50,000 a year they turn over to the Treasury from the sale of charts and directories.

Senator POINDEXTER. Admiral Washington has one more item he wants to testify to.

INCREASE OF THE NAVY.

Admiral WASHINGTON. That is on page 62, line 19. You will see at the end of that paragraph it says in lines 23 and 24: "And these balances shall not be available for any other purposes." We would like to have inserted in there, line 19, after the words "Navy Department," "for the supply of gyro-compass equipment for destroyers not yet supplied," so we can get part of that for the purchase of the gyro equipment. We had the money for that, but the present bill—

Senator HALE (interposing). Was that appropriated for last year? Admiral WASHINGTON. You did appropriate for this in 1917. Senator, but this bill now you see has a provision that such balances shall not be available for any other purpose than the increase of the Navy; so we think the comptroller might rule that we could not use that for gyro compass. Those 147 ships should be supplied with them. At the present time we have them fitted with magnetic compass.

Senator PAGE. Mr. Secretary, when you are through with the Admiral, we would like you to tell us what you want to take up to-morrow.

Assistant Secretary ROOSEVELT. Is the Admiral through now?

Admiral WASHINGTON. Yes, sir.

Assistant Secretary ROOSEVELT. Mr. Chairman, if it is agreeable to you, to-morrow morning Admiral Wilson will be here to appear on the question of the graduating class at Annapolis.

Senator PAGE. And he will occupy how much time, in your opinion?

Assistant Secretary ROOSEVELT. It depends a great deal upon what the gentlemen of the committee desire to hear on it. His exposition would probably be over in from half to three-quarters of an hour; but, then, I should suppose that the gentlemen of the committee would like to talk rather extensively on it. My idea would be, then, that would take pretty nearly the morning upon the graduating class at Annapolis. In the afternoon I thought we could have a session and repair—Admiral Taylor appear before the committee on his appropriation. That should not take more than three-quarters of an hour. Then, after that, Admiral Potter would start on supplies and accounts, and you would adjourn before he was through, and would continue Admiral Potter's hearing on Thursday.

Senator POINDEXTER. Why would not this matter of the Hydrographic Office, in case the committee desires to authorize the work covered by the language of the bill? You desire an increase of the amount provided in the bill, and is not the language broad enough to cover the wording you have described?

Admiral WASHINGTON. It is. It is only the increase of the appropriation we are interested in.

Senator POINDEXTER. Purchase and printing of nautical books and charts. That is what you want to do?

Admiral WASHINGTON. Yes. The work has been carried on for the last 10 years at least.

Senator HALE. That is simply an increase of the appropriation?

Admiral WASHINGTON. An increase in the appropriation to give them money and more experts to work; draftsmen, etc.

Senator HALE. Otherwise they are limited?

Admiral WASHINGTON. That is correct.

Senator PAGE. Is it the wish of the committee that we meet at half past 10 to-morrow morning? Is there any objection to meeting half past 10 to-morrow morning?

There being none, we stand adjourned until half past 10.

(Whereupon, the subcommittee adjourned to Wednesday, May 3, 1922, at 10.30 o'clock a. m.)

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

WEDNESDAY, MAY 3, 1922.

UNITED STATES SENATE.
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS.
Washington, D. C.

The subcommittee met at 10.30 o'clock a. m.

Present: Senators Page (chairman), Poindexter, Hale, Phipps, Jewberry, Swanson, and Glass.

Also, Hon. Edwin Denby, Secretary of the Navy; Hon. Theodore Roosevelt, Assistant Secretary of the Navy; Admiral H. B. Wilson, United States Navy, superintendent of the United States Naval Militia; and others.

Senator PAGE. Mr. Secretary, we are ready to hear Admiral Wilson now.

PRELIMINARY STATEMENT OF HON. EDWIN DENBY, SECRETARY OF THE NAVY.

COMMISSIONING OF MIDSHIPMEN.

Secretary DENBY. Mr. Chairman, perhaps I ought to say before Admiral Wilson testifies, prefacing his statement, that the hope of the department is that we may be allowed to graduate and commission all of the first class of the Naval Academy. That is the Navy Department policy, and is based upon losses that are expected in the line of the Navy in the very near future.

Our present line strength is, as you know, about 4,100. We shall lose within the next four years probably 60 per cent of a thousand of these men. The attrition in the service is generally put at about 3 per cent. Then, as you all know, we took in from the warrant officers and enlisted men of the service and from the reserves, after examination, probably a thousand during and after the war who are now part of the regular strength of the Navy. Many of those men are old petty officers, and they will naturally go out in various ways to a very considerable extent.

Senator HALE. How many do you estimate we will lose within the next four years?

Secretary DENBY. We will lose about 60 per cent of that thousand, because they are old, and many of them will be unable to successfully take the professional examinations, and will not be eligible for promotion, and will resign or be dropped on that account. Many of them will go out by retirement; and we do not believe that the force of the Navy will be materially increased by taking in and commis-

sioning the entire Academy class of this year. The department's policy, therefore, is to recommend to the committee that the entire class of 1922 be graduated and commissioned in the service.

Admiral Wilson will present to you a more detailed explanation.

PRESENT STRENGTH OF THE NAVY.

Senator HALE. Mr. Chairman, I should like to ask the Secretary one further matter about the officers of the Navy. How many officers have we in the Navy at the present time, line and staff?

Secretary DENBY. I can not give you the exact figures. The of course, is what we base the strength of the Navy on. There is 4,100. The staff corps are based on relativity to the line, and I not the figures. They are in the book here, but I have not exactly in my memory.

Senator HALE. Substantially 6,000?

Secretary DENBY. Yes; substantially 6,000, line and staff.

Senator HALE. And how many officers should we have for a Navy of 86,000?

Secretary DENBY. We have proceeded on the basis of 4 per cent of line officers in the past. We have found it altogether too small, especially since the increase in submarines, aircraft, and radio. I personally think that the present strength of the Navy is, if an altogether too small. It is lower in relativity between enlisted men and officers than are the navies of the other powers which maintain large navies; but that relativity of 4 per cent between line and enlisted men, I personally think, should be abolished, and we should adopt a new point, say, 5 per cent.

Senator HALE. But, in any event, at the present time we have no surplus of line officers?

Secretary DENBY. In the opinion of the Navy, we have absolutely no surplus of line officers.

Senator HALE. That is what I wanted to bring out.

Senator NEWBERRY. Of course, if we have an authorized strength of 86,000, as provided for in the House legislative bill, and the existing law says we shall have 4 per cent of line officers, we would have an excess.

Secretary DENBY. Then, of course, by law that would be so.

Senator NEWBERRY. That is, if the authorized strength of the Navy is made 86,000 by law, and the existing law is not changed.

Senator HALE. The 4 per cent now is on the authorized strength of 137,000 men, is it not?

Secretary DENBY. It is not even that. Last year you gave us 106,000, but we could not maintain the 106,000 on account of lack of funds.

Senator HALE. But if the House bill providing for an authorized strength of 86,000 should go through, we would have a surplus of line officers?

Secretary DENBY. Even then, at the moment I do not think we would, because while we would have an excess under the law, I think we would not have an actual excess. If the law is 4 per cent, based on 86,000, of course the present strength would be very much higher than the authorized strength; but under the existing law, the author-

strength being 137,000, which I hope we will not change, we have not an excess.

FUTURE CLASSES AT NAVAL ACADEMY.

Senator POINDEXTER. Mr. Secretary, what is the policy of the department, if it has any policy, in regard to future classes at the Naval Academy?

Secretary DENBY. The policy of the department in regard to the future classes will, of course, depend largely on the action of Congress, and we are not considering future classes excepting that the policy of the department is to hope that in any event all who are there, or designated, may be given the education and graduated, and either taken into the Navy or given diplomas. Of course, we can only expect that all the men at the academy will be graduated and commissioned in the Navy; but we do expect and hope that all who are there now will be graduated and either commissioned in the Navy or given diplomas.

Senator HALE. What is the policy of the department with regard to taking in new men?

Secretary DENBY. Our recommendation was to reduce from five to three the number of men that may be at the academy from each representative in Congress and each Senator, while appointees by the President and other sources would be proportionately reduced.

Senator HALE. Which would result in a graduating class of about 100 men, would it not?

Senator PHIPPS. Three hundred.

Senator HALE. No; they do not all graduate.

Secretary DENBY. They do not all stay through the four-year course, and all Senators and Representatives do not appoint; so that there is always a considerable number of the authorized number who are not there. Then, furthermore, a good many of them do not graduate. I would not attempt to give estimates as to those figures; but it is quite clear that no matter how many we have authorized to go to the academy the full number will not go, and the full number of those who do go will not graduate.

Senator NEWBERRY. It would be approximately two-fifths of the present class.

Senator POINDEXTER. What would you say as to giving to members of this class the privilege of resigning if they choose to do so, such of them as did choose to resign, or to take commissions in the Army?

Secretary DENBY. If I had the power and authority to do so, I would accept any resignation from any midshipman.

Senator NEWBERRY. You have the power, have you not?

Secretary DENBY. I have the power. We do it, as a matter of fact. We have accepted a good many.

Senator PAGE. And are you expecting many resignations?

Secretary DENBY. Not if the legislation goes through retaining the present number and commissioning the class.

Senator PHIPPS. The class will number about 535, we are informed. That is, on a five-appointment basis—five appointees for each Representative and each Senator. Then, if you reduce it to 3, it would be in the neighborhood of 300 a year, would it not?

Senator NEWBERRY. No; two. It would be two-fifths, of course. If you have five now and then two later, it will be two-fifths.

Senator PHIPPS. That is right; two-fifths.

Secretary DENBY. We approximate a thousand men at the academy. We recommended three appointments for each Senator's Representative instead of two.

Senator PHIPPS. That is where I was confused.

Secretary DENBY. But the losses in the class, the casualties from one cause or another, are always considerable, and the fact that a certain number of vacancies always exist which are not filled must be taken into account, so that we can not give exact figures. We only give exact figures as to what might be, but not for what will. The only thing we can say is that we know we will never get into the academy than the law allows. We can not always keep many in the academy as the law allows.

Are there any other questions?

Senator POINDEXTER. No more questions, I think.

Secretary DENBY. Admiral Wilson, then, is the next witness.

STATEMENT OF REAR ADMIRAL HENRY B. WILSON, 1ST DEPUTY STATES NAVY, SUPERINTENDENT OF THE UNITED NAVAL ACADEMY.

COMMISSIONING OF MIDSHIPMEN.

Admiral WILSON. Gentlemen, what object of the Naval Academy do you wish me to make a statement about?

Senator PAGE. I understand that the principal interest is in the number of midshipmen we will commission at the present time.

Admiral WILSON. Yes, sir.

On the 1st day of May, in the present first class, there were 541 members. A few may fail physically. None have tendered their resignations as yet, but I think a few will do so if there is not any legislation, my idea being that those who wish to get out hesitate about tendering their resignations in view of the fact that the bill as passed by the House gives those who do not come into the Navy three months' pay and 5 cents a mile to their homes; and I imagine that they are not caring to give that up, even those who do not care to come into the Navy. If there is no legislation which will permit all the class to get commissions, I imagine there would be about 50 who might tender their resignations. If there is a prospect of legislation limiting the number who come into the Navy, I think there would be an additional 100 who are slightly indifferent about the service, and who would be willing to eliminate themselves in order to insure that their classmates who are anxious to get into the Navy obtain commissions. Of course, nothing has yet been presented to me from the midshipmen, in view of the uncertainty as to whether or not there is to be legislation.

I have frankly told them that I thought there would be no legislation against them, that all of them would get into the Navy, if for no other reason than the shortness of time before the naval bill would be passed, as they graduate on the 2d of June; and I think that has encouraged them very much. They are a fine lot of men. They have

worked hard for four years with the idea of getting into the Navy. They have shown themselves worthy men, from the fact that the morale at the Naval Academy has not gone down any during the war, and it would be supposed that that would be the case with 500 young men who did not know whether they were going to get into the Navy or not, though that is what they have chosen for their life profession. At the early part of the year the report was that nobody would be taken, but they never lost hope all the time, and they have been doing their work at the Naval Academy to my satisfaction in every way.

Senator NEWBERRY. Can you tell us how much the Navy needs these young men?

Admiral WILSON. I should think, just from the point of view of an officer of the Navy—I am not in touch with all the data—that every one of these men would be wanted in the Navy. I know that when I graduated from the Naval Academy over two-thirds of my class were put out under the same sort of ruling; and I think that they would have been much better off if they had remained, and it cost us a great deal more to get men to take their places than it would have cost to pay them to remain in the Navy. I think it would be a great handicap to the service if they were not all retained—at least, all those who wish to remain.

Senator PAGE. You may proceed.

Admiral WILSON. I have nothing more on that subject, sir.

Senator POINDEXTER. The most important thing in the Navy is the body of trained officers, is it not?

Admiral WILSON. Yes, sir.

Senator POINDEXTER. It takes more time to get trained officers than it does to get trained enlisted men?

Admiral WILSON. Yes, sir. I think the last war showed that a little bit of money spent in training the commissioned personnel of the Navy would have meant a large saving to the Government over what we did have to spend to get reserves—the money that was spent at the Naval Academy just for putting the Reserve officers through a four-months' course there. If we had that amount to pay midshipmen for the regular service, we would not have to come to the committee, I guess, for a good many years to ask for more.

Senator PAGE. Has any Senator any questions to ask?

Senator HALE. You mean about this particular matter?

Senator PAGE. Yes.

Senator POINDEXTER. Have you anything else you want to present, Admiral?

Admiral WILSON. Yes, sir; I have two or three things on the Naval Academy as coming out in the Appropriation bill.

Senator PAGE. Admiral, will you tell us what the estimated cost of putting a man through the Naval Academy now is?

Admiral WILSON. I do not know what it costs.

Senator PAGE. Are there not figures that are reliable that can be drawn upon to tell us?

Admiral WILSON. I imagine so, sir, but we have not the figures at the Naval Academy.

Senator PAGE. That is all.

DEFERRIZATION PLANT.

Senator POINDEXTER. What is the next matter that you want to take up?

Admiral WILSON. The amounts appropriated in the bill as coming from the House are entirely in accord with the estimates from the superintendent except for one item—that is, in the maintenance of the Naval Academy they gave us the same amount as last year. That was in accordance with our wishes; but I spoke to the committee about having \$20,000 for the maintenance for the deferrization plant that we are installing.

This plant is going to be of the greatest value to us in the way of economy by saving wastage of water, saving pipes, etc.; we will not get much return the first year, and it will cost \$20,000 to run it, if we could get at the Naval Academy; for the first year, the chances are that in subsequent years it will be materially reduced, and soon cut off altogether.

Senator POINDEXTER. What item is that in the bill? Have you a copy of the bill here?

MAINTENANCE AND REPAIRS.

Admiral WILSON. It is maintenance—one of the last points in the bill.

Senator POINDEXTER. Maintenance and repairs?

Admiral WILSON. Yes, sir; page 53, maintenance and repairs, Naval Academy.

Senator POINDEXTER. \$1,105,000?

Admiral WILSON. Yes, sir. We want to make it \$1,125,000. I thought it was acceptable on the other side, but it seems that it was left out.

There were a number of items all through the bill for the Naval Academy. The amounts were reduced in pretty nearly every item, at our own suggestion. That was the only one that is retained the same, and this \$20,000 does not increase the total from what was appropriated last year.

DEFERRIZATION PLANT.

Senator POINDEXTER. What do you want with that \$20,000?

Admiral WILSON. We want to run this deferrization plant that we are putting in, that takes the iron oxide out of the water, which makes the water there very bad. We have to run a great quantity of water to get it clear, and it rots our pipes, soils the clothes, and the installation of this plant is going to be a great move in the direction of economy.

Senator POINDEXTER. Will it cost \$20,000 a year to operate that plant?

Admiral WILSON. We think it will for the first year, but it is a new thing to us, and after that it will be nothing, because we will save it on pipe, we will save it on water, and we will save it on all the other expenditures; but we fear that for the first year our maintenance appropriation will run below the necessary amount if we do not have this little sum. We will not spend it if we do not need it.

Senator NEWBERRY. Is this the same water that they had when you were there, Admiral?

Admiral WILSON. No, sir; it is from an artesian well now, and it is not mud, you see.

Senator NEWBERRY. How long have the Naval Academy had the water supply they have there now?

Admiral WILSON. I do not know how many years; but they have been trying to get this deferrization plant for some time, and we got it for it, and we will have it finished by the 1st of July.

Senator POINDEXTER. There was no estimate for this; was there?

Admiral WILSON. No, sir. If you should put in the lump sum it would be best. We counted it in the lump sum.

Senator POINDEXTER. The lump sum is the same that the department had?

Admiral WILSON. Yes, sir. I told the committee that I should like to have \$100,000 more. It is not worth wasting any time on, however. It will do our best.

CIVILIAN PROFESSORS.

Senator POINDEXTER. What is the next item you want to bring to the attention?

Admiral WILSON. I have only one more item, sir. That is the legislation that was put in here, not in the interest of the Naval Academy or the Government, in regard to preventing utilizing the services of an officer in the place of civilian professors. That is a great handicap to us. It is not in the interest of the Government, it is in the interest of the individual. I think it could be readily taken out without any inconvenience to anybody connected with the Government.

Senator PHIPPS. Will you call attention to that particular item in the bill, please?

Admiral WILSON. It is on page 50, line 17.

Senator NEWBERRY. On the side.

Senator POINDEXTER. Is that in the bill?

Senator NEWBERRY. Yes; on the side.

Admiral WILSON. That item is not in the interest of the Govern-

Senator NEWBERRY. Will you explain what you explained to the House committee about the status of civilian professors there, the number, and what you propose to do to take care of the old ones, etc.?

Admiral WILSON. Yes, sir.

In 1912 the number of civilian professors at the Naval Academy

was 22. At this time it is 118. This number has been largely increased because of the fact that during the war the officers were away at sea and their services could not be utilized, and therefore they employed civilians. Now we have gotten back to pre-war conditions. This is a war condition that we want to get removed, and we desire to utilize the services of officers in certain branches where they can perform the services equally well with professors as regards the scholastic work, and at the same time make their impression upon the young men in the section rooms. We have the officers, and there is no necessity of employing this large number of civilians. If this paragraph is taken out, there will be no civilian

under contract or implied contract, or any man who was in Naval Academy before the war, who will be given anyt absolutely just treatment. In fact, everybody will be given treatment; but the people whose services would be spared w a number who came in during the war and since the war, of them have not been there nine months.

Senator HALE. Admiral, do officers who are assigned to duty professors and instructors receive extra pay?

Admiral WILSON. No, sir; not at all. In fact, they co to Naval Academy under adverse conditions. Living condit Annapolis are very bad, and they really come at a sacrifice.

Senator NEWBERRY. What is your plan as to the retention of tain civilians and the amount of money you propose to save for Government? I did not hear it.

Admiral WILSON. What brought up this subject was a addressed me in the Committee on Appropriations in the 1 when I was before it, as to economies that could be exer l a Naval Academy. I told them various things, and then 1 l if they really were after economy there was one item in v quarter of a million dollars could be saved, and that was by r ing from the Naval Academy the civilians who had done work for us during the war, when our officers could n on account of being at the front, but now that the war v officers were available and should be utilized in training shipmen. That seemed to be acceptable to the committee, l the bill came out of the committee and went into the Ho not only restored everything but they tacked on this a which handicaps the authorities of the Naval Academy i in exercising their functions.

Senator POINDEXTER. How many civilian teachers did you there before the war?

Admiral WILSON. I made a record before leaving A It is as follows: In 1912, 22; in 1913, 26; in 1914, 1915 In 1916 we had 64. You will remember that that was w we l getting ready, in a subrosa way, for the war. In 1917, actually at war, we had 89; in 1918, 89; in 1919, 102; i have 118.

Senator POINDEXTER. What is the aggregate pay of the ci teachers there?

Admiral WILSON. It is in the bill for \$385,000. I committee that we might reduce the number to 1 m professors who were there before war was decla , w l about 40, releasing 78 (which is now 77, since o di about a quarter of a million dollars.

Senator POINDEXTER. What amount did you ask for of civilian professors?

Admiral WILSON. The estimate in the Budget was last year—\$385,000.

Senator HALE. The Budget estimate was \$392,850.

Admiral WILSON. Pardon me—\$392,850. That was \$7,0 from the year before, which was to handle the yearly pay that these professors get.

Senator HALE. Admiral. I notice that the Ho \$421,500 instead of the \$385,000 which was asked for.

Admiral WILSON. That is due to the fact that they struck from bill certain instructors in physical training, and put it in a lump sum, so that the physical training could be handled directly by the Superintendent's recommendation to the Secretary.

Senator HALE. That is, they granted the \$36,500 which would take care of those?

Admiral WILSON. Yes, sir; they granted the \$36,500 which was taken away from individuals and put it in the same as for anybody

Senator PHIPPS. Admiral, if before the war you got along with 20 to 26 civilians, is it not possible now to find in the Navy organization talent that will make it unnecessary for you to retain many as 40 of these civilians? Could you not go back to your former figure of about 20 in special subjects where naval officers are not especially qualified?

Admiral WILSON. Mr. Senator, I tried to be perfectly fair with gentlemen who have worked when we could not have the officers to do it. I do not wish to cripple any one. We could readily, without any hurt to the Naval Academy, do just what you say. Not only would it not hurt the efficiency of the Naval Academy but it would very much increase it to have officers teach the midshipmen, and have me see, when they come in, what an officer looks like, and have them trained up to it. In fact, in some studies like naval history, instead of having, as we have to-day, young graduates of colleges who hardly know that ships are hollow, we would have naval officers there who have actually done things in the war, so that, for instance, the history of the war would be taught by those who might have been actual participants in it. They will teach by example. It is my belief that the officer who is going to be the shipmate and messmate of these young men some day should be the one to bring them up.

Senator PHIPPS. These professors came into your service there during that it was on account of war conditions that they were needed, and I do not know that they should be accorded or expected to give any special consideration now that the war is over and officers who are qualified to give this instruction are available to do that duty.

Admiral WILSON. That was my official opinion, sir, when I brought the matter up at the request of the Committee on Appropriations of the House.

Senator HALE. Admiral, the number of these officers in 1916, which was before we went into the war, was very large, was it not?

Admiral WILSON. Yes, sir; but, Mr. Senator, you will remember that even in the early part of 1916 there were certain demands upon the Navy that made it necessary for naval officers to go to other places, and they were not available for the Naval Academy. That is the reason why, when we were getting the prospect of war, we had to bring in civilians into the academy.

Senator HALE. That accounted for the increase?

Admiral WILSON. That accounted for the increase right there in that year. In 1915 we had 26. In 1916 we had 64—that is, the 1st of October, 1916. Then we declared war six months after that time. The fact was that the officers were not available to come there.

They were being used for other purposes. Although we were not at war, they were being utilized in certain fields.

Senator HALE. On account of the prospect of war?

Admiral WILSON. On account of the prospect of war; yes, sir.

Senator POINDEXTER. What is the length of detail of a teacher or instructor at the academy? How long does he stay there?

Admiral WILSON. He stays there for two or three years, sir—two years and some three years.

Senator POINDEXTER. About the time he acquires much facility teaching or instruction then he is sent away, and you get an inexperienced man?

Admiral WILSON. I have a little difference of opinion on that subject, sir. I think that in the case of a naval officer coming into academy, if he is the sort of man that we are supposed to get at Naval Academy, what he loses in teaching compared to a prof will be more than made up by the fact that he wears the uniform and is an officer and is teaching men for one particular line of work in the Navy.

I should like to say, as to the Board of Visitors that have just reported the Naval Academy, that while I have not seen their report, the preliminary report that was given to me before they left shows that after thorough investigation of the subject they are entirely of the opinion that we should return to a prewar condition regarding the instructors.

Senator HALE. Admiral, I take it that the terms of some of civilian instructors will run out during the next year.

Admiral WILSON. Yes, sir. It is not my intention, sir, to recommend to the Secretary doing away with the services of those who had even an implied contract, provided his services were satisfactory.

Senator HALE. If we should cut out the House provision, would we not be justified in cutting down that appropriation to a great extent?

Admiral WILSON. I have not anything to say about the appropriation, sir. That is for you gentlemen to say, but, of course, it is to me to say how much we will use of it.

Senator HALE. Can you tell me how many of them have terms run out during the next year?

Admiral WILSON. Yes, sir. There are 51 whose terms run out the 30th day of June of this year.

Senator HALE. The 30th day of June?

Admiral WILSON. Yes, sir.

Senator HALE. And I suppose the next lot that go out will run out on the 30th day of June of next year?

Admiral WILSON. I doubt if any of them would go out because some of those that are going to carry on after June have a contract which the Secretary has decided is legal provided their services are satisfactory; and it is appropriated that would carry them on to the next year.

Senator HALE. But, in any event, none of them until June of next year?

Admiral WILSON. No, sir; none would run out until the next year. I think, sir, that the amount of money is a matter of which the superintendent is concerned, not of indifference to the Government in this matter. If you will strike out the provision, which is against the interests of the Government,

the recommendation of the superintendent to the Secretary, I could work it out pretty satisfactorily.

Mr. HALE. Yes; but as far as the appropriation is concerned, I don't want to cut that down. What would the aggregate of the salaries of the 51 who go out amount to?

Admiral WILSON. I should say that if those 51 went out there would be about \$150,000 saved. I should think the appropriation of \$1,000,000 could be cut in half and still have efficiency at the Naval Academy.

Mr. POINDEXTER. Is there anything further, Admiral?

Admiral WILSON. No, sir; not so far as the Naval Academy is concerned.

Mr. POINDEXTER. Some question was asked awhile ago about the care of civilians who had served there a long time when they were discharged. Is there any recommendation as to that?

Admiral WILSON. No, sir. I told these gentlemen when they came here that that was entirely a matter of policy; that was a Navy management question, and I did not feel that it was my office to step in at that; that as long as the supply was equal to the demand to fill the vacancies of the Naval Academy the superintendent would be interested. I thought, if he suggested anything on that subject to the Secretary of the Navy, who is in charge of the policy; that it was a matter entirely for the Bureau of Navigation and the Secretary of the Navy.

Mr. SWANSON. What is your idea about the policy of changing the Academy by employing a great many civilians and putting naval officers in their place?

Admiral WILSON. I was just saying, sir, that I think it would be an excellent, not only as a move in the direction of economy but also of the efficiency of the Naval Academy, to return to pre-war conditions.

I had also added, Senator, that the gentlemen who visited the Academy last week, judging from the preliminary report that they handed me, were of the same opinion. One of your constituents, Mr. Ferguson, I remember, was chairman of the board.

Mr. POINDEXTER. There was complaint made some time ago on the part of friends of one civilian, either librarian or teacher there, that he had a five-year contract, and was discharged contrary to its terms before its expiration.

Admiral WILSON. No, sir; he has not been discharged, and his discharge has not been decided by the Secretary as being legal; but that does not prevent the department from dispensing with his services if it is in the interest of the Government to do so.

Mr. NEWBERRY. That is, if his services are unsatisfactory?

Admiral WILSON. Or if he arrives at the age of 65 years.

Mr. HALE. But the intention of the department is not to get rid of these civilian instructors who were there prior to the war, but to get rid of these temporary ones, provided the House provision is carried out?

Admiral WILSON. Yes, sir.

Mr. HALE. And not all of the temporary ones?

Admiral WILSON. Not all of them, because if the Naval Academy were to employ a great many civilians there we would only be recreating the situation all the time, and it would be bad for the academy. West

Point has only 3 civilians compared to the 118 that we have, and those 3 are in modern languages. They have 7 professors' heads of departments who correspond to our professors in mathematics.

Senator POINDEXTER. Why have you retained these civilians there?

Admiral WILSON. I guess they had the influence to stay, sir. I imagine that is the reason.

Senator POINDEXTER. There is no law requiring you to keep them.

Admiral WILSON. No, sir. I came to the Naval Academy July absolutely ignorant in regard to the personnel situation, and has been my thought during the time I have been there, not only to meet the situation in the way of saving money, but to make the personnel more efficient.

Senator POINDEXTER. Very well, Admiral. We are very much obliged to you.

OFFICER STRENGTH OF THE NAVY.

Senator POINDEXTER. Who is the next witness, Mr. Secretary?

Secretary DENBY. The next witness is Admiral Washington.

STATEMENT OF REAR ADMIRAL THOMAS WASHINGTON, OF THE BUREAU OF NAVIGATION—Resumed.

Senator POINDEXTER. I understand, Admiral, that you will make a statement of the need of the Navy for the entire class at the Naval Academy.

Admiral WASHINGTON. Yes, sir.

Senator POINDEXTER. What have you to say about that?

Admiral WASHINGTON. The Navy Department considers it that all of the members of the present first class of midshipmen commissioned as ensigns in the line of the Navy and sent to sea.

Disregarding for the moment any consideration of the number of line officers required to man all of the vessels to be retained under the naval disarmament treaty, careful attention is invited to the following significant facts regarding the present status of the personnel of the line of the Navy and the absolute needs for the coming fiscal year.

On the 3d of April there were in the line of the Navy 4,093 officers on the active list. This figure includes 196 former commissioned warrant officers and 813 officers who were commissioned after graduation in accordance with the act of June 4, 1920. The total number of line officers who are graduates of the Naval Academy is approximately 3,080.

The naval appropriation bill for the fiscal year ending June 30, 1923, as passed by the House, provides for an enlisted strength of 86,000. Properly to officer the fleet and the necessary shore establishment under the approved operating plan for 86,000 men requires 5,135 commissioned officers of the line.

The commissioning as ensigns of the 535 prospective graduates of the Naval Academy will increase the number of available line officers to 4,628, a figure 507 short of the number actually required for the approaching fiscal year.

the present time we have serving with the ships, afloat, a total 93 regular officers, plus 272 reserve officers, which gives us 4,350, all told. If these graduates are commissioned, if the class is commissioned, it will give us a slight excess, possibly above the number we are employing at present. The attrition is, by, $3\frac{1}{2}$ per cent a year, due to deaths, resignations, dismissals, and other causes. On a basis of 4,100, that is about 150 more that we lose; so that by the end of the present calendar year it will be down to practically what we now have, even if we take and commission all of that class. There will be but a small increase beyond the number we are employing at the present time.

Senator SWANSON. What would the number of officers be then?

Senator WASHINGTON. About 4,350.

Senator SWANSON. In the line?

Senator WASHINGTON. In the line.

Senator HALE. That is, with those additional men that will come in?

Senator WASHINGTON. Yes, sir; and after a loss of 200 during the calendar year we would be down to practically what we have to-day—4,100, the line plus the officers in the auxiliary service.

Senator SWANSON. You said, as I understood you, that the number had been $3\frac{1}{2}$ per cent upon the actual strength?

Senator WASHINGTON. On the actual strength.

Senator SWANSON. The law prescribes a limit to the number of officers of 4 per cent of the enlisted strength, and you have had a loss of $3\frac{1}{2}$ per cent on the actual strength every year.

Senator WASHINGTON. Yes, sir; it will average that.

Senator SWANSON. It will average about $3\frac{1}{2}$ per cent?

Senator WASHINGTON. Yes, sir; under normal conditions.

Senator SWANSON. If these graduates were put in it would make more than 4 per cent?

Senator WASHINGTON. Probably, a little.

Senator SWANSON. But if you did not do that you would be below the authorized strength of the act of 1916?

Senator WASHINGTON. On the present authorized strength, considerably less; about 1,200.

Senator SWANSON. The Navy has not had the number of officers authorized by law? You have been very slow in filling up?

Senator WASHINGTON. We have not filled up at all; we never filled up.

Senator SWANSON. Although you could have put other officers in on a 4 per cent basis?

Senator WASHINGTON. Yes.

Senator POINDEXTER. Aside from these averages and percentages, these young men are graduated where will they be sent? Is the need for them in the Navy?

Senator WASHINGTON. I am going on the supposition that the employment of these 272 reserve officers will not be continued. It seems to be the general sentiment, and there we will lose 272. Congress has already passed the authorization for taking in 200 of the graduating class. Now, if we lose 272 from the auxiliary service and replace them from the graduates of the Naval Academy, we will make 472, and that will then leave only about 60 of the class remaining that would not be taken in the line to balance us with

what we have now. Of these remaining 60 graduates the Marine Corps would commission some.

Senator POINDEXTER. Is there a full complement of officers at present on the ships in commission?

Admiral WASHINGTON. Practically no ship in commission—I do not think any ship in commission in the Navy—has its full complement. We are short-handed right through.

Senator POINDEXTER. Then I presume some of these ensigns would be sent aboard ships?

Admiral WASHINGTON. All of them. The radio service has a considerable number of officers now, and aviation we expect within a few years will draw very heavily upon us for more officers with development of that branch. Those officers are sort of temporarily sidetracked when on that special work and are not easily available for the manning of the fleet. Instead of gaining in the actual number of officers available for manning the fleet, outside of aviation and radio, we would be in the position, under the present circumstances—that is, the circumstances that we foresee, of the reduction of appointments at the Naval Academy—of going down the number of line officers all the time. If we take in 200 graduates at the Naval Academy, and we have a known lossage of about 150, we are gaining only about 50 each year out of that 200. Now, we know that in the next four or five years a large number of warrant officers who were taken in from civil life last year, and of the warrant officers who were commissioned and enlisted men from the ranks, are going out by resignation, retirement, or otherwise. We are going to lose in the neighborhood of 150 of them—average that number—for the next four years.

Senator HALE. Is that aside from the ordinary attrition that you speak of?

Admiral WASHINGTON. That is aside. Three and half years is the average for the last 16 to 20 years. Now, when you take four or five years I can see that many of those warrant officers and others are undoubtedly going to go on the retired list. The average age already from 60 down to 45 or so years.

Then there are a number of those who entered last fall from the Naval Academy, a total of 813 of them, all of whom I doubt very much will be able to pass the examinations for promotion, and they will, for one or another, either leave the service entirely or take advantage of the retired list. Therefore all losses will be greater than 34 per cent during the next four or five years. I figure it roughly at 200 per cent.

Senator HALE. You said that very few of the ships of the Navy have their full complement of officers. Is that because we do not have enough officers?

Admiral WASHINGTON. That is because we have not enough. I do not think that there is a combatant ship to-day in the Navy that has its full complement of officers, or that has had its full complement at any time since the war.

The British ships of similar power and tonnage with us have from 30 per cent more line officers than we do, right through the fleet. On the average, I should say, of 15 or 20 per cent. On almost every battleship. On the destroyers we have the full complement of from four down to 2. On the submarines there is a shortage of at least one.

Senator POINDEXTER. What is the complement of officers on the largest submarines?

Admiral WASHINGTON. Four.

Senator SWANSON. As I understand, when we fixed the basis of 4 per cent for officers, that was a smaller basis than in any other Navy?

Admiral WASHINGTON. Yes, sir.

Senator SWANSON. Smaller than in any other navy at all. I remember when we fixed that percentage in 1916, it was smaller than any other navy in the world, of the large navies. They wanted the time 6 per cent, but we fixed 4 per cent, which, as I understand, it, was less than in any other navy; and you have averaged 3½ per cent; which shows that the Navy has not crowded itself with officers, like some other branches of the Government service.

Admiral WASHINGTON. We have never filled our complement of officers up to the limit. Our grades were never filled.

RESERVE OFFICERS.

Senator SWANSON. These reserve officers that are to be retired on 30th of June that were connected with the auxiliary, and were transferred to the Navy and put on the reserve list, some of them have been officers for 15 or 20 years. If this House provision prevails, all of those officers will be excluded entirely from the service?

Admiral WASHINGTON. Yes, sir.

Senator SWANSON. What does the department think about that?

Admiral WASHINGTON. I think that is doing justice to those officers who have been in the auxiliary for all these years, and given their entire time to it?

Admiral WASHINGTON. I have been discussing that with the Secretary this morning, and I think his views were largely along the line of recommending to the committee that the benefits of the reserve be given to those who have served 15 years, on the same basis of pay as is given to others placed in that class; and those who have less than 15 years' service—that is 15 years' total service—reserve officers and auxiliary service, to be paid, say, 2½ per cent for each year of service that they have rendered.

That was along the lines of what the British Navy had done in mobilizing their officer strength, and it seems to me that it is rather a reasonable proposition. I do not think that an officer who served only 10 years, or thereabouts, should be given the benefits of the reserve list. The law requires at least 30 years' service for retirement—the Army, Navy, or Marine Corps.

Senator SWANSON. Has the department fixed up an amendment to carry out that provision?

Admiral WASHINGTON. They are working on it now with reference to the cost. We will know about it to-day.

Secretary DENBY. The amount needed is not computed, Senator.

Senator SWANSON. I have known a case where a man has given his entire time to the Navy and the auxiliary, and has been in battles in wars, and by this provision he is now entirely eliminated from the Navy.

Secretary DENBY. We have a provision to cover that, Senator.

Senator NEWBERRY. There are a number of those officers, Senator, who have served 15 years or more in the auxiliary reserve. They will all be cared for by this amendment which they say they will have passed here in a day or two. That will cost just what you have in mind.

Senator SWANSON. The auxiliary service involved was just as necessary as any other part of the naval service, and those men have many of them, given their entire time and service to it; and now to turn them loose, like it is contemplated, it seems to me is unjust.

Secretary DENBY. By this amendment, which will be prepared by the department, we hope they will be taken care of.

Senator SWANSON. I suggest that you fix that up, so that they will be taken care of. Those men have served all over the world and have suffered just as much as those in the regular Navy.

Secretary DENBY. We have a bill that will be prepared and sent up here, with necessary data accompanying it.

Senator SWANSON. If that is not done, they will go out on the 30th of June?

Admiral WASHINGTON. Yes, sir.

Senator HALE. The department does not ask that they be in the service?

Secretary DENBY. No; the department asks that they be given certain compensation, dependent on the length of their service. We have graded it all, but we have not yet the complete figures, and would prefer to submit them to you in written form, and testify concerning them, if you wish, afterwards.

Senator PAGE. Have you any other statement you wish to have any member of the committee further questions to ask?

Senator PHIPPS. I want to ask another question. If I understand correctly, the present law imposes a limitation of 4 per cent on the authorized force in line officers. With the enlisted force of \$6,000, 4 per cent of that number is 3,440, is it not?

Admiral WASHINGTON. Yes, sir.

Senator PHIPPS. Now, is it not going to be necessary to change that limit? Should not that be changed in this bill?

Senator HALE. The authorization still stands for a Navy of 137,500.

Senator GLASS. And we are appropriating for only \$6,000.

Senator PHIPPS. I wanted to be sure that this covered it.

Admiral WASHINGTON. That applies to the authorized strength and not to the actual strength.

Senator SWANSON. If you had a declaration of war, in 1916, we would have an authorized strength of 137,500, which could be used in time of emergency and necessity. But this limitation applies to the number appropriated for, so that we can have line officers in excess of 4 per cent of that number.

Senator PHIPPS. I did not understand that, because, of course, I have not studied this bill.

Senator SWANSON. When war was declared against Germany, the authorization enabled Secretary Daniels, of the Navy, to go ahead immediately in advance of any further action of Congress. They have continued that authorization in any necessity should come up quickly they could expand it. They would have to come to Congress, of course, to get more.

Secretary DENBY. Of course, practically it would be accepted in case of emergency declared by the President, or as he publicly declared, but if such emergency existed.

Senator POINDEXTER. Have you anything further to bring up, Admiral?

Admiral WASHINGTON. No; I have nothing further. I think the committee understands the reasons, as we have given them, for commissioning all of those Naval Academy graduates, and particularly concerning the loss of these 272 naval auxiliary officers.

RESIGNATION OF MIDSHIPMEN.

Senator NEWBERRY. I wanted to ask if the department intends to notify the midshipmen that their resignations would be accepted if they did not desire to be commissioned?

Admiral WASHINGTON. The present secretary has accepted all resignations of midshipmen on every occasion when they tendered them. We have not held back any for the last 15 months.

Senator NEWBERRY. But can you not answer my question, whether the department intends to notify the graduating class members that they can resign if they desire to, before graduation?

Admiral WASHINGTON. They know it.

Senator NEWBERRY. They do know it?

Admiral WASHINGTON. Yes, sir; and we are accepting their resignations almost every day, and have been, week after week.

Senator NEWBERRY. It is known to them that they can resign, if they desire to, without graduating?

Admiral WASHINGTON. The Secretary has placed no restriction on any commissioned officer or graduate of the Naval Academy who desires to resign.

Senator NEWBERRY. Do you think most of them desire to graduate?

Admiral WASHINGTON. I think they will all graduate, and then may resign after they get their diplomas.

Senator NEWBERRY. Probably of the class that graduates, 500 of them would not all want to go into the service.

Admiral WASHINGTON. I doubt if the entire 500 would go in.

Senator NEWBERRY. Of course, they could resign the day they graduate.

Secretary DENBY. The department would rather have them graduate before they go out into civil life.

STATEMENT OF REAR ADMIRAL DAVID W. TAYLOR, CHIEF OF THE BUREAU OF CONSTRUCTION AND REPAIR.

Senator PAGE. Admiral, I see the appropriation is for \$14,200,000, as passed by the House. You have estimated for \$20,000,000. I presume we would like to hear from you, especially as to the reasons for increase.

Admiral TAYLOR. The estimate of \$20,000,000, Mr. Chairman, was the original estimate which came down on the basis of a 96,000 man Navy. The later estimates I can tell you about briefly. We were required to prepare estimates on the basis when the House had the bill of a 67,000 man Navy, and that estimate under Construction and Repair, for the vessels which the Navy Department would man with 67,000 men, was \$16,465,000.

Senator POINDEXTER. For how many men?

Admiral TAYLOR. Sixty-seven thousand men, Senator. You will find it in the discussion in the hearing before the House.

Senator HALE. That is on page 545 of the House hearings.

Admiral TAYLOR. That estimate of \$16,465,000 was cut by the House committee to \$14,200,000, plus \$200,000 for the technical force, making a comparative figure of \$14,400,000. On the basis of 86,000 men, with vessels which will be manned by 86,000 men on the Navy Department distribution, the reduced estimate which has been submitted is \$18,441,000. That is the estimate which takes the place of the \$20,000,000.

Senator PAGE. That is on the basis of 86,000 men?

Admiral TAYLOR. That is on the basis of 86,000 men.

Senator POINDEXTER. What are the items which composed that?

Admiral TAYLOR. The items that composed that are the repairs to hulls of vessels in commission; repairs to vessels out of commission; the maintenance charges at industrial and military yards; clerical, drafting, inspection, etc., force, leave and holiday pay, and miscellaneous. The major part in this appropriation is the expenses on the vessels in commission.

Senator POINDEXTER. Does this include any money for the construction of new ships?

Admiral TAYLOR. Not any.

Senator NEWBERRY. Will you show us what that \$16,441,000 is used for?

Admiral TAYLOR. I can show you what the \$18,000,000 is used for, because the cut by the House committee was below anything that we could have.

Senator NEWBERRY. I want to get clear in my mind what this amount is. You wanted, instead of \$20,000,000, \$16,000,000?

Admiral TAYLOR. No, sir; \$18,441,000.

Senator GLASS. That is what he actually wants now.

Admiral TAYLOR. Yes. That \$16,000,000 was on the basis of 67,000 men for the ships which the Navy Department would man with 67,000 men.

Senator NEWBERRY. Now, if you have 26,000 more men, you want \$2,000,000 more, is that it?

Admiral TAYLOR. Yes, sir; and we also want the money which was cut out by the House.

Senator NEWBERRY. I would like to get clear in my mind what is the increase. You say the increase is due to the increase in men, and you say roughly it is about \$2,000,000.

Admiral TAYLOR. Yes; \$2,000,000.

Senator NEWBERRY. Will you show us where that \$2,000,000 is going?

Admiral TAYLOR. That goes in taking care of the additional ships.

Senator NEWBERRY. The details of that the committee would like to have in the record so that if we agree with you we can act on our action.

Admiral TAYLOR. I can supply a list of ships. I can show you a comparative list of ships, which has been virtually published already in the record before the house.

Senator NEWBERRY. If you could show in the record where \$2,000,000 is going that is made necessary by the increase of personnel, that is just what we want to have.

Admiral TAYLOR. Yes, sir.

appropriation "Construction and repair, 1923," statement showing changes in estimates for 86,000 men compared with 67,000 men.

Vessels in full commission.	67,000 men.	86,000 men.	Increases.
ships.....	13	18	\$850,000
2, second line.....	4	5	70,000
2, light.....	6	8	100,000
ers.....	1	2	50,000
ers.....	65	103	760,000
ers, light.....	4	6	40,000
its.....	9	10	20,000
tenders.....	5	6	45,000
se.....	1	3	120,000
ships.....	0	3	180,000
ial ships.....	5	7	140,000
sweepers.....	1	2	60,000
ellaneous (tugs, barges, lighters, etc.).....	4	19	225,000
			30,000
als in ordinary and reduced commission.....	56	0	2,690,000
			1,050,000
			1,640,000
re activities:			
Maintenance charges.....			136,000
Leave and holiday.....			200,000
Net increase.....			1,976,000
1, man Navy.....			16,465,000
00-man Navy.....			18,441,000

¹ December.

Senator HALE. Showing the specific list of ships we can have with the \$18,000,000 that we could not have with the \$16,000,000?

Admiral TAYLOR. Yes, sir. In making those estimates, Mr. Chairman, we have been resolving every doubt on the side of economy. For instance, if we take the 16 battleships that we had in commission during the year 1921, they actually cost, under the construction and repair appropriations, just under \$250,000 apiece. That was the expenditure on the hull of the vessel; title C, costs of commission, the monthly allowance for repairs and equipage.

For 1923 we have figured on only \$170,000 apiece under the same appropriation for virtually the same battleships to be kept in commission. We have reduced the expenditures, the maintenance charges, at the industrial navy yards, which during 1921 were \$600,000. We figure that at \$1,700,000.

There will be next year a large number of vessels out of commission—an unusually large number of vessels. The total first cost of the vessels that will be out of commission next year will be in the neighborhood of \$500,000,000, of which something like \$200,000,000 are to be taken care of by this appropriation. We are allowing for that maintenance only three-quarters of 1 per cent, which I fear will be too low, but we have resolved every doubt in favor of making it as low as possible.

If you compare this estimate with what we have had in the past, if you go back to 1916, the original appropriation for the years 1916 and 1917 for construction and repair was a little over \$10,000,000. I got a later appropriation when we went into the war, but the original appropriation is the proper amount to compare with this estimate.

Compare the cost of labor to-day at the navy yards with what it was in 1916. It is about 66 $\frac{2}{3}$ per cent higher.

Material is a good deal higher.

Senator HALE. About how much?

Admiral TAYLOR. Not less than 40 per cent, I should say, for those materials that we use. It is a little difficult to say, because it depends on the materials that we use, and we are still using up a lot of materials that we got during the war that has been marked down to current prices. But the main difference comes in as regards the size of the Navy.

In the first place, all the vessels of the Navy, on June 30, 1916, had cost about \$422,000,000. All the vessels which we will have to care of under this appropriation next year have cost about 1,140,000, more than two and a half times as much as in 1916.

You can see for yourself, with an appropriation of \$10,000,000 in 1916, and with the cost of labor up two-thirds and the cost of material up, roughly, 40 per cent, and the value to be taken care of more than two and a half times as great, that the scale on which we will be able to take care of the Navy in 1923 is certainly less than the scale contemplated in 1916.

Senator PHIPPS. Your valuations are based on lower prices in majority of cases in regard to the new vessels, so that your percentage would have to be reduced somewhat? For an understanding comparison, it is a question of tonnage, is it not—more nearly and more accurately a comparison?

Admiral TAYLOR. As regards tonnage, we have more than twice many vessels, and the tonnage is over 60 per cent greater; must remember that it is not altogether a question of tonnage because we have a great many smaller ships and vessels to take care of which are relatively more expensive. But there can be a very large discount from that two and a half times value, and still it will show that the \$18,000,000 for 1923 is much less in proportion than the \$10,000,000 was for 1916.

NAVAL SUPPLY FUND.

Senator NEWBERRY. Do you know how much in value there is construction and repair material in the naval supply fund?

Admiral TAYLOR. That is not segregated, Senator; no, sir.

Senator NEWBERRY. Who does know?

Admiral TAYLOR. You can get an appraisalment from the Bureau of Supplies and Accounts by taking the classes. Construction Repair uses more of some classes of material than other bureaus.

Senator NEWBERRY. As I understand, the supply fund, according to the most reasonable figures, is now about \$250,000,000, ought to be only \$80,000,000 or \$100,000,000; probably \$100,000,000. The only way they can restrict that naval supply fund is by pooling of it in some way.

Admiral TAYLOR. Yes, sir.

Senator NEWBERRY. Presumably the most economical way to dispose of it would be to dispose of it to such bureaus of the department as have to purchase such materials.

Admiral TAYLOR. Practically all our material that we use comes from the naval supply fund now. We never buy anything unless

the naval supply fund, or we can not use material from the naval supply fund. We purchase practically all from the naval supply fund.

ERRY. The naval supply fund charges, according to market prices, full prices for everything that is in the naval supply fund. Whereas they are condemning and selling and disposing of that material outside of the Navy at lower prices than it cost?

BY. We are reducing the naval supply fund to the point where it will take some time to do it.

ERRY. But you do not sell at reduced prices to your own department.

OR. Yes; there was a provision a year ago by which the naval supply fund could be marked down to the current market. That is being done constantly.

ERRY. Other bureaus have testified that they always use the naval supply fund the full prices.

OR. The naval supply fund has always been supplied at fair prices, and they have been very liberal about

Qs. Are your estimates divided as between material and labor for this \$18,441,000, showing how much is needed for each? Is it for the cost of material?

OR. It runs between 50 and 60 per cent for labor and 40 and 50 per cent for material. An approximation for the next few years would be 55 per cent for labor and 45 per cent for material. It varies from year to year, and it is almost impossible to fix in advance, because this is an appropriation to take care of what we can not figure on in advance.

Qs. I presume in your estimate, then, for material, you are based upon the market prices of to-day, or the prices at which you secure materials out of any other bureau of the Navy? Is that correct?

OR. Yes, sir.

Qs. As a matter of fact, a large amount of this appropriation should be a mere matter of bookkeeping right in the department, if you have large quantities of available material? Is not that correct?

OR. It would be a matter of change of the law, being allowed to use the material in the naval supply account for it.

Qs. I see; but the material is already on hand; and why for the Congress to make an appropriation to purchase what it already owns?

OR. Because the naval supply account is not an appropriation; it is a revolving fund that is authorized, and it has

Qs. Yes.

And all of the material that you get from the supply fund included in this appropriation, will it not?

Yes, sir.

MR. VELT. Perhaps I can fill up a little bit more. The trouble is that the articles

which comprise the naval supply fund are—a lot of them—not useful now, but they are still in there. Now, if we took out and gave to Admiral Taylor all the material that he wanted next year with charging him at all for it, we would have the entire balance of \$150,000,000, let us say, to which Senator Newberry has alluded, tied up in what you might call dead stuff.

Senator HALE. And the special fund would soon die out.

Senator NEWBERRY. Let us know what you mean by dead stuff. What is it?

Assistant Secretary ROOSEVELT. I do not know that I could tell you.

Senator NEWBERRY. There must be some item that you can think of that is dead stuff.

Assistant Secretary ROOSEVELT. Too many lanterns, or things of that sort; too many water breakers; too many stretchers, ditty etc.

Senator POINDEXTER. Have you anything further, Admiral?

Admiral TAYLOR. I have nothing further.

Senator POINDEXTER. I asked you to segregate the items make up the \$18,000,000. I did not hear any distinct answer to. What are some of the principal items that make up the amount?

Admiral TAYLOR. The direct expenditures on vessels in commission, \$11,466,000; on vessels out of commission, \$1,500,000.

Maintenance charges, not prorated to the cost of work, at industrial yards and stations, \$1,700,000.

Maintenance charges at nonindustrial yards and stations, where we have a large amount of floating property to take care of, \$475,000.

Title "V" charges, miscellaneous supplies used in inspection offices, losses, repairs to equipage, etc.; tests and experiments, \$500,000.

Then there is the item of clerical, drafting, inspection, watchmen (shipkeepers) and service in inspection offices, \$1,800,000.

Leave and holiday, \$1,000,000; which is a charge that we have to pay.

Senator POINDEXTER. What was the last item?

Admiral TAYLOR. Leave and holiday.

Senator PHIPPS. Admiral, in making up these estimates you have included material and machinery and other things required in construction and repair on these vessels. Has your force ascertained what of those materials are available in the naval supply stores at the present time, from any other bureau?

Admiral TAYLOR. All the materials are available only under the Bureau of Supplies and Accounts. We have virtually no material in store under this provision, and the other bureaus carry practically no material in store under this provision.

Senator PHIPPS. You have not as yet ascertained whether or not they are, as a matter of fact, in store in some other bureau of the department?

Admiral TAYLOR. We know that a large portion of them are in store under the naval supply account.

Senator PHIPPS. You know that a large proportion of them are?

Admiral TAYLOR. Yes, sir.

Senator PHIPPS. Could you venture a guess as to the proportion of out \$9,000,000 worth of material that is now on hand in some of the bureaus of the department?

Admiral TAYLOR. The only bureau would be the Bureau of Supplies and Accounts. I could not tell you that offhand. I could get information on the subject. We carry at each navy yard under a naval supply account a standard stock, which is drawn upon for repair work and replenished as it is consumed. Not a large proportion of the naval supply account—this accumulation—is used for construction and repair work. It is mostly not standard stock.

Senator PHIPPS. Of course, I am aware that in ordinary operations you would find it necessary to maintain a standard store of equipment on hand in supplies and accounts; but we are all aware of the fact that there must be a large accumulated surplus on account of the war activities, and now it is desired to cut that down, and in many cases it should be unnecessary to immediately replace those articles that may be put to use.

Admiral TAYLOR. That has already been done, Senator. The standard stock has been cut very materially since the 4th of March, 1921. It has been cut materially below what it was. In order to carry on the work we only keep, in any case, a six months' or a year's supply, depending upon the class of the material. There is no undue accumulation of the standard stock list.

Senator PHIPPS. Perhaps the question that I want to ask should properly be addressed to some other official who has intimate charge of those supplies. What I want to get at is, what steps are being taken to reduce the quantity of supplies on hand to a proper minimum, and what steps are being taken to clear the surplus and dispose of it?

Assistant Secretary ROOSEVELT. Admiral Potter will follow Admiral Taylor, and he has charge of that particular thing.

Senator NEWBERRY. In order to refresh Admiral Taylor's memory, I would like to read what he said before the House committee on that. I find that he said there exactly what I thought he did. Mr. Kelley was asking about the purchase of material that was on hand, and he got around to the matter of boats in the naval supply fund. I read from page 564 of the House hearings. [Reading:]

Mr. KELLEY. Will there be boats enough to replace any that may be required during the coming year?

Admiral TAYLOR. No, sir. Those boats are built by the Government, and we did not get them for nothing. The contractor does not supply them.

Mr. KELLEY. You would have to take them at cost?

Admiral TAYLOR. We supply the boats, and I am afraid that the Bureau of Supplies and Accounts would not allow us to draw them out except at full cost. We have never been able to procure anything under Supplies and Accounts except at full price.

Admiral TAYLOR. Yes, sir; that is correct.

Senator NEWBERRY. Of course, it is correct; but the point I was trying to get at is this, that several times during the hearing you have explained that the Bureau of Supplies and Accounts, in order to reduce the naval supply fund, must make concessions in prices, and that they were making concessions in prices and trying to properly reduce the naval supply fund, but that those concessions did not apply to the bureaus in their own department. That is the

point I was trying to bring out, and that the Secretary can make those concessions to the bureau in his own department just as much as he can make them to a junk dealer; so that instead of spending money for new material purchased at market prices, you could use the money for materials obtained from the naval supply account at whatever price the Secretary of the Navy might determine. Am I right about the law? That, I am sure, is what was in the mind of the House committee in reducing this amount in the bill. If I am correctly informed, the Secretary, by administrative order, can reduce the cost of this material that you have to use, the various items that you list here, and the Bureau of Supplies and Accounts can sell to the Bureau of Construction and Repair these articles at prices much below the market prices. And that is the only way that you will ever reduce your \$250,000,000 naval supply fund. That amount is very properly there; I am not criticizing the fact that it is there. I am trying to point out a way in which it can be reduced to the benefit of the naval institution and not to the benefit of the junk dealer.

That will apply to every one of these items we are talking about under the other bureaus as well, under the Bureau of Ordnance and the Bureau of Steam Engineering, exactly the same as under your bureau.

Admiral TAYLOR. As to the matter of boats and many other articles carried under the naval supply account, they are not purchased; they are manufactured by the Navy itself, and are in store at actual cost of manufacture, and I do not think there has been a case where the cost of them has been reduced. I hardly think it would be proper to reduce the cost of what the Government itself just made.

Senator NEWBERRY. I do not, either. But all these other articles the Government does not manufacture.

Admiral TAYLOR. As regards the other material, that has been largely reduced by the Bureau of Supplies and Accounts to the market value. It has not been reduced below the market value.

Senator NEWBERRY. What is the objection of your bureau to getting from the Bureau of Supplies and Accounts all the material you need for the next year?

Admiral TAYLOR. In the first place, they have not in store all the materials that we need for next year.

Senator NEWBERRY. They have not all; but what do you do with what is the use of your going into the market and buying material going through the roundabout way of selling it and putting it in the Treasury?

Admiral TAYLOR. We have got to get it, anyway.

Senator HALE. If you followed out that idea of getting material from the supply fund, you would soon come down to nothing. I do not suppose it would go down much, so far as Construction and Repair is concerned.

Admiral TAYLOR. For instance, we have, say, \$9,000,000 material next year. Suppose we should get \$4,000,000 of that for nothing. That would not make a very big reduction on the \$250,000,000.

Senator NEWBERRY. At the end of 250 years it would. You have got to make a beginning.

MR SWANSON. The naval supply account is unusually large, is it not?

MR TAYLOR. It is unusually large; but it is not unusually large for the material that the Bureau of Construction and Repair

MR NEWBERRY. Some one testified that they had at least two years' stock of everything on hand. That amounted to about \$72,000,000 a year. If that was the case, they would have four or five years' stock on hand. Of course, it is not balanced; I know that.

MR TAYLOR. That is a mistake. Many items have been long in the supply on hand.

MR NEWBERRY. I know that it is not a balanced stock; but the fact is that the naval supply fund would have two years' stock on hand, \$250,000,000.

MR TAYLOR. That is the trouble; it is not balanced, and the fact is that the portion of the stock we can not use from year to year. I do not know what makes up the \$250,000,000.

REPAIRS.

MR HALE. Admiral Taylor, the House asked you to cut down the estimates by 20 per cent, and I understand that the appropriation for the House was based largely on that 20 per cent cut. What, in your estimation, would that have on the efficiency of your fleet?

MR TAYLOR. It would make a cut that we could not stand. In the present discussion with the chairman of the House committee on this way: Our original estimates were not \$20,000,000, but \$25,000,000, based on the 96,000-man Navy, and the vessels slated to keep in commission then. When I appeared before the committee I had all the details of the original estimates, but I had not been scaled down in all the items to the \$20,000,000. It was only done in a lump way.

We took up the details. Mr. Kelley asked me, in each case, in the details to cut them down by 20 per cent in order to scale down from the \$25,000,000 to the \$20,000,000.

MR HALE. But you made estimates for battleships, for cruisers, for other ships; for instance, the battleship, \$170,000. At the request of the chairman of the House committee you cut your estimates down 20 per cent?

MR TAYLOR. In order to get to that figure.

MR HALE. And it is on the basis of that cut that the House made the appropriation, as I understand?

MR TAYLOR. It is a little different from that—yes, sir; that is the fact. You must remember that the \$20,000,000 was for the fleet. The House finally made its appropriation on the basis of the fleet.

MR SWANSON. Well, the point is, this is mostly used for the repair of ships?

MR TAYLOR. For repair and maintenance of the hulls of the fleet, keeping them up to date.

MR SWANSON. You can spend it or not spend it. If you do not, the vessels get out of repair?

Compare the cost of labor to-day at the navy yards with what was in 1916. It is about 66 $\frac{2}{3}$ per cent higher.

Material is a good deal higher.

Senator HALE. About how much?

Admiral TAYLOR. Not less than 40 per cent, I should say, for the materials that we use. It is a little difficult to say, because it dep on the materials that we use, and we are still using up a lot of materials that we got during the war that has been marked down to rent prices. But the main difference comes in as regards the size of the Navy.

In the first place, all the vessels of the Navy, on June 30, 1916, had cost about \$422,000,000. All the vessels which we will have to take care of under this appropriation next year have cost about 1,140,000,000, more than two and a half times as much as in 1916.

You can see for yourself, with an appropriation of \$10,000,000 in 1916, and with the cost of labor up two-thirds and the cost of material up, roughly, 40 per cent, and the value to be taken care of more than two and a half times as great, that the scale on which we will be able to take care of the Navy in 1923 is certainly less than the scale contemplated in 1916.

Senator PHIPPS. Your valuations are based on lower prices in the majority of cases in regard to the new vessels, so that your percentage would have to be reduced somewhat? For an understandable comparison, it is a question of tonnage, is it not—more nearly and more accurately a comparison?

Admiral TAYLOR. As regards tonnage, we have more than twice as many vessels, and the tonnage is over 60 per cent greater; I must remember that it is not altogether a question of tonnage because we have a great many smaller ships and vessels to take care of which are relatively more expensive. But there can be a very large discount from that two and a half times value, and still it will show that the \$18,000,000 for 1923 is much less in proportion than the \$10,000,000 was for 1916.

NAVAL SUPPLY FUND.

Senator NEWBERRY. Do you know how much in value there is in construction and repair material in the naval supply fund?

Admiral TAYLOR. That is not segregated, Senator; no, sir.

Senator NEWBERRY. Who does know?

Admiral TAYLOR. You can get an appraisement from the Bureau of Supplies and Accounts by taking the classes. Construction and Repair uses more of some classes of material than other bureaus.

Senator NEWBERRY. As I understand, the supply fund, according to the most reasonable figures, is now about \$250,000,000, and it ought to be only \$80,000,000 or \$100,000,000; probably \$100,000,000. The only way they can restrict that naval supply fund is by disposing of it in some way.

Admiral TAYLOR. Yes, sir.

Senator NEWBERRY. Presumably the most economical way to dispose of it would be to dispose of it to such bureaus of the department as have to purchase such materials.

Admiral TAYLOR. Practically all our material that we use comes from the naval supply fund now. We never buy anything unless it

stock in the naval supply fund, or we can not use material from the naval supply fund. We purchase practically all except from the naval supply fund.

Mr NEWBERRY. The naval supply fund charges, according to the hearings, full prices for everything that is in the naval fund, whereas they are condemning and selling and disposing of that material outside of the Navy at lower prices; is not that so?

Mr DENBY. We are reducing the naval supply fund to \$1,000,000, but it will take some time to do it.

Mr NEWBERRY. But you do not sell at reduced prices to buy within your own department.

Mr TAYLOR. Yes; there was a provision a year ago by which material in the naval supply fund could be marked down to the current market price. That is being done constantly.

Mr NEWBERRY. Other bureaus have testified that they always pay to the naval supply fund the full prices.

Mr TAYLOR. The naval supply fund has always been supplied at fair prices, and they have been very liberal about

Mr PHIPPS. Are your estimates divided as between material and labor, under this \$18,441,000, showing how much is needed for each and how much is for the cost of material?

Mr TAYLOR. It runs between 50 and 60 per cent for labor and between 40 and 50 per cent for material. An approximation of the number of years would be 55 per cent for labor and 45 per cent for material. It varies from year to year, and it is almost impossible to figure in advance, because this is an appropriation to take care of work which we can not figure on in advance.

PHIPPS. I presume in your estimate, then, for material, that that upon the market prices of to-day, or the prices at which you can secure materials out of any other bureau of the Navy Department; is that correct?

Mr TAYLOR. Yes, sir.

Mr PHIPPS. As a matter of fact, a large amount of this appropriation asked for should be a mere matter of bookkeeping right in the same department, if you have large quantities of available material on hand; is not that correct?

Mr TAYLOR. It would be a matter of change of the law, because we are not allowed to use the material in the naval supply account without paying for it.

Mr PHIPPS. I see; but the material is already on hand; and is it necessary for the Congress to make an appropriation to purchase material which it already owns?

Mr TAYLOR. Because the naval supply account is not an appropriation. It is a revolving fund that is authorized, and it has been replenished.

Mr PHIPPS. Yes.

Mr HALE. And all of the material that you get from the supply account will be included in this appropriation, will it not?

Mr TAYLOR. Yes, sir.

Mr Secretary ROOSEVELT. Perhaps I can fill up a little bit the question of this naval supply. The trouble is that the articles

for incorporation in ships, and therefore it has nothing except scrap value.

In addition to that we have under subcontract many things such as windlasses and steering gear——

Senator NEWBERRY. Anchors and chains, and galley fittings.

Admiral TAYLOR (continuing). Things which are of no use to us unless we would build a ship around them. Anchors and chains for these large ships can not be used for other types. Those ships are larger than the ships we will keep, and we could not use the anchors and chains, for instance, on those other ships very well. We would have to make new windlasses, etc. Those materials generally will be of practically no use in repairing these smaller ships. Take destroyers, for instance: the scrapping of battleships will give us little or nothing of value for destroyers.

Senator NEWBERRY. But you have battleships of the same type in commission as those to be scrapped?

Admiral TAYLOR. None except the *Maryland* class.

Senator NEWBERRY. The *West Virginia*.

Admiral TAYLOR. We have one ship, the *Washington*, to be scrapped, which is of the class of the *Maryland*, the *Colorado*, and the *Virginia* to be kept.

Senator NEWBERRY. I suppose you could use the anchor and for that ship?

Admiral TAYLOR. Well, of course, we will keep those anchors and cables as spares.

Senator NEWBERRY. And galley fittings?

Admiral TAYLOR. The galley fitting? Yes, I guess the *Washington* may have her galley fittings. She is further advanced than others to be scrapped.

Senator NEWBERRY. That is what I am trying to get at, what have left over that is not going to be scrapped.

Senator HALE. When ships are scrapped, then does the material that has reference to the Bureau of Construction go direct to that bureau, or does it go to the Bureau of Accounts?

Admiral TAYLOR. It will go to Supplies and Accounts and be placed in the used material account.

Senator HALE. Then you have to buy it from that account?

Admiral TAYLOR. Not from the used material account. As regards the used material account, it costs nothing to charge it to that account, and we do not have to get material into that account, and we do not have to charge it to that account.

Senator HALE. You get that free?

Admiral TAYLOR. Yes, sir; that is, we actually get it for nothing. It is a fiction by which it is appraised and charged to the used material account at its appraised value; but we are subsequently credited with the same value also. The object of that is to keep account of the work, including actual value of all material used, and to keep all the material that can be used at all from the ships that are to be scrapped.

Senator PAGE. Is there any further statement you wish to make, Admiral?

Admiral TAYLOR. No, Senator.

Senator HALE. I want to ask another question. If you get the full amount that you ask for for construction

es that mean that you will leave out certain ships or does it mean that instead of spending \$170,000 on each battleship you will spend only \$140,000 on battleships, and keep them all in, and keep them up as well as you can?

Admiral TAYLOR. We will keep them all up as well as we can and let the other work go. It is just like when you are living in a house, when you have a window sash broken and a part of a stair broken out and a door off the hinges, you can just let those things go. We will let things remain undone that should be done. That is what we are doing, and that is what we will have to do. We will try to keep everything in service as far as possible. That is the policy of the department, as I understand.

Senator NEWBERRY. You would get material very much cheaper if it was on hand, and you could probably make the repairs cheaper?

Admiral TAYLOR. Yes, sir; but I would hate to say to the committee just how much that would reduce the appropriation next year, because it is impossible to say now. I would hate to take a chance that.

Secretary DENBY. Some time ago the order was nothing but military repairs.

Senator HALE. Admiral Robison, of the Bureau of Engineering, told us that if he did not get the appropriation he asked for it would mean that certain ships could not go into commission; not that they would spend what they got on all the ships and keep them all in commission, but that certain ships would not be used at all.

Secretary DENBY. I presume that he was correct, on new construction. I was not present at the hearing and I do not know what he would have meant.

Senator HALE. I understand that the policy of the department is to use all these ships and keep them up the best you can on the appropriations we allow?

Secretary DENBY. Yes. Of course, if it is impossible to keep them, those that we could not keep up we would have to lay up. But the effort would be to keep all we are asking for under the present bill, that we would place figures for in the record, up to a state of military efficiency. That would be done as far as possible.

Senator POINDEXTER. Admiral Taylor, what is the status of the bill for new construction?

Admiral TAYLOR. That is very low, Senator.

Assistant Secretary ROOSEVELT. Senator, if you will allow me to make a suggestion there, I think that we really ought to have that as a separate hearing, and the department is preparing for that now. As we see, there are three elements in that proposition. Not only Admiral Taylor but Admiral Robison and Admiral McVay are concerned in that; and then the House provisions come in, and the appropriating bill which is about to be taken up in the House but has not been taken up on account of the fact that Mr. Butler has been ill; and I think we should get a more comprehensive and more intelligent hearing if we had a particular time set for that and you would direct the department to bring up two or three gentlemen to deal especially with that.

Senator POINDEXTER. I would much prefer to deal with it in that way if the department is not ready to proceed now.

Assistant Secretary ROOSEVELT. Very well.

Secretary DENBY. I am sorry that Admiral Potter has not come yet. We have no other witness present now.

Senator PAGE. Will he be here at 2 o'clock?

Secretary DENBY. Yes, sir; he will be here at whatever hour you may name.

Senator PAGE. The Senate is now in session, and we will take a recess until 2 o'clock, if that is your pleasure.

(Thereupon, at 12.30 o'clock p. m., the subcommittee took a recess until 2 o'clock p. m.)

AFTER RECESS.

The subcommittee met, pursuant to the taking of the recess, at 2 o'clock p. m.

(Senator Page presiding.)

STATEMENT OF REAR ADMIRAL DAVID POTTER, CHIEF OF THE BUREAU OF SUPPLIES AND ACCOUNTS, PAYMASTER GENERAL OF THE NAVY, ASSISTED BY CAPT. T. W. LEUTZE, ASSISTANT PAYMASTER GENERAL, AND MR. CLYDE REED, SPECIAL ASSISTANT.

Secretary DENBY. If the committee is ready to proceed, A Potter will testify for Supplies and Accounts.

Senator PAGE. This is on page 31, line 17?

Admiral POTTER. Senator, may I go back a minute to page 3?

CONTINGENT EXPENSES, NAVY DEPARTMENT.

Admiral POTTER. On page 3, under "Contingent expenses of Navy Department," line 9, the amount for various our offices ought to be changed there from \$70,000 to read as \$80.

The \$15,000 proposed change is due to the fact that the committee transferred "Maintenance, Supplies and Accounts," to salaries of the Navy Department a certain number of salaries we had formerly paid under "Maintenance, Supplies and Accounts." A charge for office supplies should thus be against the "Supplies and Accounts" of an additional \$15,000, and the other "Maintenance, Supplies and Accounts" would be diminished correspondingly. There was no change in the total amount for the Navy.

Senator HALE. Where is the other?

Admiral POTTER. The other is under "Maintenance, Supplies and Accounts," sir. When we reach "Maintenance, Supplies and Accounts" I will point that out.

Senator HALE. What page?

Admiral POTTER. Page 38.

(At this point there was a brief recess while the members of subcommittee responded to a call.)

Admiral POTTER. Senator Hale had just asked me if responding diminution is made in respect of the \$15,000 recommending be added on page 3. If you will refer to under "Maintenance, Supplies and Accounts," lines 23 a

our original intention to ask for an additional amount under that appropriation of \$600,000. That was the intention; but instead of for that \$600,000 we will ask, when we come to it, for \$585,000, which will make the difference of \$15,000. I will handle that in due time when we get to it.

Senator PAGE. I proceed, sir?

Senator PAGE. If you please.

PAY OF THE NAVY.

Admiral POTTER. The next amendment we propose is on page 31, line 19, under "Pay of the Navy." We are recommending that that amount be changed from \$25,893,986 to read \$26,963,137.

That is simply to allow the amount that will be necessary if the full class at the Naval Academy is graduated.

Senator PAGE. Otherwise that will be unchanged?

Admiral POTTER. Yes, sir. If those officers are not commissioned there would be no change there.

Senator NEWBERRY. How many officers is that, exactly?

Admiral POTTER. I understand that is a difference over the 200,335, sir—535 altogether.

The next item is on page 31, line 23: We recommend that the amount of \$1,310,400 be changed to read \$1,361,376. That also is provided the 335 additional midshipmen are commissioned officers in the Navy, in which case a corresponding change for allowance of commutation of quarters would be necessary.

Senator PAGE. Otherwise there would be no change?

Admiral POTTER. Otherwise there is no change, sir.

Senator NEWBERRY. Commutation of quarters on account of commissioning extra midshipmen?

Admiral POTTER. Yes, sir.

MAINTENANCE, SUPPLIES AND ACCOUNTS.

The next amendment we have in mind is on page 38, lines 23 and 24. We recommend that that be changed from \$7,069,260 to \$7,654,260, being a total increase of \$585,000.

It is at that point that we had meant to ask for \$600,000 and are reducing it \$15,000 because we have suggested the other amount be added on page 3.

Senator SWANSON. What is that for?

Admiral POTTER. That is the appropriation that maintains the naval force in the field that serves all bureaus of the establishment. It is this force that makes it possible to collect not only the information that the Bureau of Supplies and Accounts gives you, but the information that the whole naval establishment gives you with respect to records of property and of money.

The House committee did not see fit to allow us what we consider absolutely necessary. We had already pared it down to the lowest possible limits, and I do not know how we can get through and still manage to give proper service to the naval establishment and to the Congress without this \$600,000.

As you know, we are required by law to submit really formidable statistics to Congress. We publish an annual volume of over 1,200

statistical pages. It has been greater than that in the past, but in the endeavor to secure economy in this last year the Secretary of the Navy has authorized me to leave out 560 pages, although they would be very useful. We have the information in the records of Navy Department, but did not publish it.

That annual report of the Paymaster (General of over 1,200 pages is made use of by all bureaus of the Navy, by Congress, and by several other departments of the Government, including—

Senator NEWBERRY (interposing). That would give you more than the Budget estimate?

Admiral POTTER. No, sir; our estimate was \$8,100,000, I think.

Senator NEWBERRY. Yes, sir; but \$430,000 has been transferred to another place.

Admiral POTTER. Yes, sir.

Senator NEWBERRY. So add \$430,000 to \$7,640,000, and what is result?

Admiral POTTER. That is the total, adding \$430,000 to \$7,640,000, \$8,070,000, practically \$8,100,000.

Senator NEWBERRY. And they have transferred \$430,000 out of appropriation?

Admiral POTTER. Yes, sir.

Senator NEWBERRY. So if that item is restored, as long as you have it in another place, that would be more than the estimate?

Senator HALE. No; a little less.

Admiral POTTER. It would be a little less than the estimate by just that amount that has been transferred, sir.

Senator SWANSON. The only thing this would do would be to keep you from getting up the statistics necessary for your annual report.

Admiral POTTER. The statistics that are gathered into the annual report represent the record of the entire activities at the navy yards and on board the ships of the fleet.

Senator SWANSON. Most of this money is used to employ people to get up the statistics, is it not?

Admiral POTTER. No, sir. That is a way of putting it, but it is used to employ people to keep the records of the Navy Department in respect of the issues of money and of property; also to employ people to work in storehouses, and that sort of work.

Senator SWANSON. What naval activity would be lessened if the House provision just remains as it is? I will just get it that way.

Admiral POTTER. Yes, sir. The most direct thing would be to keep the records of the expenditures made under the appropriation. It is very defective. We would have to relinquish the employment of so many persons that we would not be able to keep a record of the amounts expended, both in respect of money and of property, with all the appalling consequences that would probably follow.

Senator SWANSON. How many men would you have if this appropriation should remain as the House has provided?

Admiral POTTER. This would release about 350, I should say; between 350 and 400.

Senator SWANSON. How many did you ever employ before 1915 on this appropriation?

Mr. REED. About 800.

Senator SWANSON. How many have you now?

Mr. REED. About 2,000.

Senator SWANSON. Would this continue the 2,000?

Mr. REED. No; there would a slight reduction have to be made.

Senator SWANSON. How much reduction would have to be made?

Mr. REED. A reduction of about 200 from our present force.

Senator SWANSON. And that would reduce you to about 1,800?

Mr. REED. Yes, sir.

Senator SWANSON. And in 1916, before we went to war, you had 1?

Mr. REED. Yes.

Senator SWANSON. And now you have double that force?

Mr. REED. Yes.

Senator SWANSON. Why do you need double the number that it was or to 1916?

Admiral POTTER. Of course, the total amount of moneys expended the Navy are considerably more than double what they were at time: they have been four times as much; and the property on hand is about four or five times as much as that on hand before the war.

Senator SWANSON. Well, you have a great deal of property that you have not used, and that you are making no use of in any active way. You do not have to go and look at it again, do you?

Admiral POTTER. We have to keep care of it all the time. This is not only statistical information; it is the payment of the persons who are charged with the custody of the storehouses.

Senator SWANSON. How many people would you have under the House provision? How many people could you employ under the House provision?

Mr. REED. We would be able to carry about 1,500 in the clerical force.

Senator SWANSON. You had 800 before the war and are able to carry 1,500; and if you got this increase you could carry about 1,800. What is the total estimate, is it?

CLERICAL AND UNSKILLED LABOR FORCE.

Mr. REED. This total increase of \$500,000 is not all for the employment of clerical force. About \$178,000 is for clerical force, about 10,000 is for unskilled labor to handle supplies in storehouses and on the ships, \$100,000 is for additional material, packing boxes, office supplies, and books, blanks, and stationery, and \$107,000 is for supplies to be consumed by the ships, and over and above the amount we would be able to spend under the House provision, making the total of \$585,000.

Of course, if the increased amount is not allowed we would have to make cuts where we could best do it.

Senator SWANSON. Where would you make the cuts if we just let the appropriation stay as the House has it?

Mr. REED. There would have to be a considerable cut in the clerical force.

Senator SWANSON. Reduce that to about 1,500?

Mr. REED. There would have to be a cut probably in the amount of unskilled labor that we need for the handling of supplies, which might tie up and delay the issue of materials to the other bureaus.

Senator SWANSON. When you speak of causing delay, do you now have a great many unskilled laborers when there is a rush, if you get through let them "lay off" until the next order comes.

Admiral POTTER. We lay them off; that is, rather, we release the unskilled labor when we do not need them.

Senator SWANSON. You simply hire them by the day?

Admiral POTTER. Yes, sir.

Senator SWANSON. There is no monthly pay roll or anything that with respect to them?

Admiral POTTER. They are paid weekly. They are not in permanent status.

Senator SWANSON. You just use them when you want them and dismiss them when you are through with them?

Admiral POTTER. They are turned off every day, the unskilled labor.

Senator HALE. Admiral, your \$8,100,000, which substantially you are asking for now, was made on the basis of a Navy of 106,000. Does the size of the Navy have anything to do with the amount of this item?

Admiral POTTER. Hardly anything so far as the enlisted men are concerned. The amount of work going on has a good deal to do with it, but until our stores get diminished and our very extensive sales system, etc., is wiped out, the number of clerks will be but very little diminished.

SOAP ON BOARD VESSELS, YEOMEN'S STORES.

Senator HALE. I notice this provides for soap on board naval vessels, athletic officers, yeomen's stores, etc.

Admiral POTTER. Yes, sir.

Senator HALE. You would need less for a smaller Navy?

Admiral POTTER. Yes, sir; but—

Senator HALE. Then ought not your estimate be cut down?

Admiral POTTER. Well, that estimate of \$8,100,000 did not represent our best views for a 106,000 Navy. That estimate was what we thought might meet the approval of the Budget, but it did not represent the solid calculations as to what would really likely be expended for a 106,000 Navy.

Senator HALE. But you would have been satisfied with that and probably would not have gotten more than that if we had kept the 106,000 Navy.

Admiral POTTER. We would have had to be satisfied, yes, sir.

Senator HALE. So this estimate is based on a higher proportion than the one that was made by the Budget?

Admiral POTTER. Well, that is one way of putting it, but I think we will need it.

CLERICAL FORCE.

Senator POINDEXTER. What language in this item here covers the clerical employment? Where is the language? The item begins on page 37.

Admiral POTTER. Yes, sir.

r. REED. Starting on page 38, line 24, is the provision for clerical employees.

Admiral POTTER (reads):

Provided, That the sum to be paid out of this appropriation under the direction of the Secretary of the Navy, for chemists and for clerical, inspection, messenger service.

Senator POINDEXTER. That is the proviso and not the purpose for which the appropriation is made.

Mr. REED. Page 38, line 16, beginning "Labor in general storehouses, paymasters' offices, and accounting offices" is the specific provision, that authorizing the employment of personal service, and proviso gives the authority for the employment of clerical help, being under the act of March 3, 1911, a permanent law which prohibited the use of any general appropriations for the payment of clerical services in navy yards except as specifically authorized by Congress in connection with such appropriations.

Senator POINDEXTER. Do you consider an appropriation for labor a specific authorization for clerical employment?

Admiral POTTER. The proviso gives the specific authorization for clerical employment, Senator.

Senator POINDEXTER. That is a very curious way of making an appropriation—to state one object and make the appropriation for it then in a proviso put in the main thing that you have in view.

Admiral POTTER. I think that does not differ from any other lump-sum appropriation.

r. REED. There has not been any change in the language for many years.

Senator POINDEXTER. Are you asking for any change in the item on page 39?

r. REED. No, sir; that limitation there is sufficiently large. However, with the appropriation limited to \$7,000,000 we would not be able to spend up to that full authorization for clerical, inspection and messenger service at navy yards.

Senator NEWBERRY. Was it not really out of that item the \$420,000 is transferred?

r. REED. It was. The limitation there was reduced by the amount transferred to the appropriation Salaries, Navy Department.

Senator HALE. Admiral, do you get any other appropriation for naval forces under the legislative appropriation bill?

Admiral POTTER. You refer to the old legislative, executive, and judicial bill?

Senator HALE. Yes.

Admiral POTTER. No, sir.

Senator HALE. You did formerly?

Admiral POTTER. Yes, sir; we did. We now get certain salaries under Navy Department, on page 40.

r. REED. This bill carries the appropriation for the Navy Department and the Naval Establishment, whereas formerly we got the money for the department in the legislative, executive, and judicial bill.

Admiral POTTER. It is now within the naval appropriation bill.

Senator SWANSON. What is the next, Admiral?

FREIGHT, SUPPLIES, AND ACCOUNTS.

Admiral POTTER. On page 39, line 17, under the heading of "Freight." We would like to have the amount of \$4,000,000 read \$5,000,000. It is an increase of \$1,000,000.

We have no expectation, unless a great many navy yards for some reason be closed, of being able to get through upon the amount I think I am safe in saying, if I may say so, that our figures are fairly convincing to the House committee, but they had allowed us last year upon the initial bill \$4,000,000, and they rather adhered apparently to the same allowance. However, they allowed us by a deficiency bill since, \$1,600,000. We asked for \$2,000,000 extra, they have allowed us \$1,600,000. So the total amount for the current fiscal year, the one ending June 30, 1922, that we have available is \$5,600,000.

Allowing for diminution in the activities for 1923, if we have it will take about \$5,000,000 to get through, we think. The Department of the Navy has issued very drastic orders in connection with it which have been in full effect for six months.

For example, no shipment of freight can be made in any part of the Naval Establishment except for genuine medical emergencies, or something like that, without prior reference to the Navy Department, that is, to the Bureau of Supplies and Accounts. We determine here from our wider range of knowledge whether a shipment is absolutely necessary. We continually refuse such shipments. We also decide whether it shall be commercial carrier or Government conveyance.

The Chief of Operations enables us to carry on certain considerable amount of materials, and that, of course, saves to this appropriation. We have made as careful a calculation as we think possible. We even have worked out the amount in dollars of freight that we expect to move. That appears in the hearings before the House committee, if anyone wants to read where I have that all set out. Perhaps you do not care to read it, but we have it all set out with great care. A calculation of the freight values, and we worked that out on a per-mile basis according to the schedules we have.

Senator SWANSON. What did you spend last year on this?

Admiral POTTER. \$9,100,000.

Senator SWANSON. How much?

Admiral POTTER. \$9,100,000.

Senator SWANSON. Last year?

Admiral POTTER. The year ending June 30, 1921.

Senator SWANSON. That was on account of a great many stores you were shipping to go into cold storage?

Admiral POTTER. Yes, sir; we were clearing up.

Senator SWANSON. Have you cleared up all the supplies now?

Admiral POTTER. We have not cleared up the whole war stores. We still shift about where we can make the most of them. For instance, this past year we have shifted stores in one or nine months to the value of about \$9,000,000.

Senator SWANSON. And you ship a larger amount of stores for that reason than you would ship if you were not doing them?

Admiral POTTER. Yes, sir; we save on the purchasing and transfer.

Senator SWANSON. You save in the purchasing and increase the cost of transportation charges. That is true, is it not?

Admiral POTTER. Yes, sir. That is diminishing, as you see.

Senator SWANSON. And as it is here limited you would have difficulty in making the shipments and you would have to purchase supplies where the fleet was located?

Admiral POTTER. Yes, sir. We had, until they allowed us \$1,000,000 more, in the endeavor to conserve this appropriation and to use it as hard as we could, accumulated at any given moment up to 12,000 tons of material awaiting shipment. We are now clear on that up to some extent.

Senator SWANSON. You are satisfied that that is a reasonably conservative amount?

Admiral POTTER. Yes, sir. Our actual calculation was over \$5,200,000, which I have corroborated by the Federal traffic coordinator. If we get \$5,000,000, of course, we will just cut our coat according to the cloth. We will do it in some way, even if we hold up shipments of freight. This makes allowance for such carriage as we will be able to get by Government conveyance. I have the figures here on coast to coast.

Senator SWANSON. That is all in the House hearing?

Admiral POTTER. Yes, sir; that is all in the House hearing. It may be of interest to you to know in connection with freight that the President has placed under the Navy Department, under an officer of the Bureau of Supplies and Accounts, the coordination of all the freight traffic. That is being done now in the Navy Department. The cargoes of freight amounting to 2-carload lots or over from any part of the United States are first referred to the Navy Department for the routing. We send out the routing, thus achieving substantial economies—or prevention of expenditures perhaps I should say.

Senator HALE. What was the appropriation for the year prior to the war for this item?

Admiral POTTER. The year prior to the war?

Senator HALE. 1916.

Mr. REED. We spent about \$1,000,000 that year.

Senator HALE. That was about the ordinary appropriation before the war?

Admiral POTTER. Yes, sir.

Senator HALE. Last year you spent \$9,100,000?

Admiral POTTER. Yes, sir.

Senator HALE. This year you are spending substantially \$5,600,000?

Admiral POTTER. Yes, sir.

Senator HALE. And for next year you estimate it will be nearly as much as this year?

Admiral POTTER. We estimate it will be about \$600,000 less. That is quite a percentage of the total.

Mr. REED. One reason for the varying difference between the estimate for 1923 and the current year is that we will be moving a greater quantity of the supplies that the Navy now owns to the west coast for the use of the fleet there; reserve stocks that we have had are now exhausted there. And we will have to move supplies from the east coast to the west coast, and most of that will have to be moved

out pumps and parts of pumps; we will ship out a good deal of trical cable and insulated wire; a considerable amount of radio apparatus; a considerable amount of electrical apparatus. There is a yet some rigging blocks and such accessories and cable and Our rope walk, as you know, sir, is at Boston, and pretty nearly or our large cordage is made there. That will have to be shipped a great deal of it. Wire rope, as well as the finished articles of can such as we use, boat covers, and all that will go out; a good bedding and textiles; gaskets, packing material for engine-ro supplies. I could name a good many more, sir.

Senator PHIPPS. Can you give us any reason for shipping any of supplies of that nature by rail, as against shipping them by water at one-half the cost of transportation?

Admiral POTTER. It is when it is really needed that we send it by rail.

Senator PHIPPS. Does it make any particular difference whether it gets there at the end of two weeks or at the end of two months?

Admiral POTTER. Sometimes it does, sir; sometimes there is a sudden call; something goes on in South America or Central America.

Senator PHIPPS. That would be an exceptional case. That would not run into tonnage amounting to 50,000 or 100,000 tons?

Admiral POTTER. Not quite; but we have estimated the amount will be 35,000 tons. That is based on past experience. It may not be so much. I hope it will not. If it is necessary, however, it will average us \$43 a ton.

Senator HALE. Are you not shipping out supplies in this freight whether needed at a particular time or not, so as to have a storage on the west coast?

Admiral POTTER. Yes; we have a considerable accumulation of material there.

Senator HALE. And you are adding to that accumulation all the time?

Admiral POTTER. Only as required. We do not do it as a principle. We keep up to certain amounts sufficient to meet what is calculated to be a possible war need, and there are large storehouses maintained there. Eventually the supplies on hand will be much reduced, of course.

Senator HALE. Would it not be cheaper for you to keep a certain amount of stores out there so they could be called for out there rather than to have them call for them in the East and ship them by rail so they can get there at a certain time?

NEED OF STOREHOUSES.

Admiral POTTER. Yes, sir; it would if the market had permitted us to accumulate, hitherto, sufficient quantities there. Another point in connection with that is that our storage space is limited. There is some stuff we can not keep out in the open, and we have not money enough to build storehouses. We need storehouses badly at Mare Island, somewhat less at Seattle. The storehouse at San Diego is not completed and will not be sufficiently large when it is completed. At Pearl Harbor we badly need storage houses.

NAVY CARGO SHIPS.

Senator NEWBERRY. What Navy cargo ships are supplied for carrying freight? And I wonder if they make regular trips or not. Do I know about that?

Admiral POTTER. They are approximately regular. We have got ten cargo vessels, Senator, and we expect that they will sail about 600 miles each a year. That is an estimate given to us by the Chief of Operations. Some of these vessels are in the West Indies, in the Asiatic, and some of them go around through the canal.

Senator NEWBERRY. You have three store ships?

Admiral POTTER. Yes, sir; we have store ships in addition.

Senator NEWBERRY. I suppose the store ships are with the fleet?

Admiral POTTER. That is it; yes, sir.

Senator NEWBERRY. Do these cargo vessels make regular scheduled trips, or wait around for something to be sent?

Admiral POTTER. They run about once every two months.

Senator NEWBERRY. I wonder if the seven run on regular routes and any other organization runs its vessels?

Admiral POTTER. There are three running now to the Pacific coast, Senator Newberry. Only one will run next year. They go about once every two and one-half months. There will be one ship next year that will run about once every two and one-half months between the Atlantic and Pacific coasts. They are going to take off two of these

Senator NEWBERRY. They are going to operate seven of them. If they operate with cargo, they must operate with cargo you put in

Admiral POTTER. We have two in the West Indies, two go on the trans-Pacific trip, one on duty in the Far East, and two will go around between the Atlantic and Pacific coasts. That is the seven.

Senator POINDEXTER. How do you figure out it is in the interest of economy to ship supplies by rail at a high freight rate because you haven't got a storehouse to put them in, whereas you could send them inland in advance by water? Why is it not more economical to build a storehouse at Pearl Harbor, for instance, to keep your supplies in?

Admiral POTTER. It would be in the long run. A storehouse at Pearl Harbor, for example, would cost us at least \$300,000.

Senator POINDEXTER. Well, you are asking here for \$1,000,000 in this item.

Admiral POTTER. Yes, sir; but that is only one phase of it. That applies to commercial shipments to the West. That is only part of

Page 1002 of the hearings before the House gives in some detail figures. I can give that over again. Page 1004 of the hearings gives details of rates from different points.

Senator PAGE. Admiral, do you find that in making all of these shipments and transshipments you have some system that forces you to practice the utmost economy?

Admiral POTTER. We think our system is good, sir. We have all tariffs and schedules. When we make purchases we take into consideration the freight rates involved.

Our general scheme is that any purchase east of the Mississippi River we make f. o. b. point of delivery, which is usually a navy

yard, so that the price of the freight is absorbed in the price of article as delivered f. o. b. navy yard. West of the Mississippi, ever, the land-grant rates come into play, and we have to give very careful consideration as to whether it is not advisable in many cases to purchase f. o. b. factory or point of manufacture, have contract end at that point, and then pay the freight, less the land-grant rates, from this appropriation.

Senator PAGE. The final result is that you are fairly certain the best that can be done is done in regard to saving money freight?

Admiral POTTER. Yes, sir; we have an elaborate and we think efficient purchasing system which works in connection with freight division.

Senator PAGE. And all these details were worked out and they would show?

Admiral POTTER. Yes, sir; I think you would be satisfied if I show you the thousands of original bills of lading and the contracts we have to make. This is a result of a consideration those factors.

Senator POINDEXTER. He naturally would give himself a fair reputation.

Admiral POTTER. That is fair, Senator. The Bureau of Budget, which made a very elaborate investigation of the Navy department and spent weeks in Supplies and Accounts, said kind things about us, and it ought to be impartial, and I think it is. It was partly because of that, I think, that they recommended to President, as I mentioned a while ago, that the supervision of transportation of all departments of the Government, so far as it concerned routing, should come under an officer of the Supply Corps of the Navy. We have actually prevented the expenditure about \$400,000 by stopping improper routings, and I think it will be at least \$1,200,000 by the end of the calendar year.

Senator POINDEXTER. Who prevented that?

Admiral POTTER. Commander C. G. Mayo, who is an officer of the Navy, attached to the Bureau of Supplies and Accounts and who has a subsidiary office in which he spends half of his day. It is in the Navy Department.

Senator POINDEXTER. This saving is in other departments?

Admiral POTTER. Yes; precisely. The Navy was one of the other way: The Director of the Budget said the business of checking railway freight bills was far and away the best. President placed all departments of the Government under the disbursing officer of the Navy Department, acting as chief coordinator and chairman of the Federal Traffic Board. That is how it is run now, since the 26th day of November. They are assigned from each other department of the Government as representatives, and they have a total force of about 20, with two officers at the head of it are officers of the Supply Corps of the Navy, Commander C. G. Mayo and Lieut. E. B. Kenney.

Senator PAGE. Admiral, of the criticism that is made of this system here, what do you think is worthy of consideration? Of course, you have criticisms, you find some things do not work as you expect. What particular feature of your work

Admiral POTTER. I recall now only two suggestions that seem to me it be of interest to you. It has been unofficially suggested—unofficially; perhaps it was in another way, but it has been said that there be a general freight appropriation for all departments of the Government. I do not mean a freight appropriation for each department, but one for all, into which all freight collections of the Government should be gathered, one lump sum for all departments, and, as a subsidiary suggestion, that that should be administered from the General Accounting Office and all payments of freight bills should be made from that office.

Those two suggestions, which are really part of the same thing, have been made. I very much doubt myself that it would work, because different departments have different methods. The executive side ought to be kept separate from the final audit, and it does not seem to me correct procedure to make the General Accounting Office pay the bills. I conceive the General Accounting Office is here to audit the bills.

Senator PAGE. Gentlemen, are there any further questions you want to introduce here?

Admiral POTTER. I am through with this phase of it. I have one or two other points.

If you will allow me, I will pass for the moment the fuel and transportation item and let Captain Leutze, who has specialized in these figures, speak for me on that when we come to it.

PROVISIONS OF THE NAVY.

But I would like to mention a question referring to provisions of the Navy. We are not asking for any increase in the amount allowed by the House of Representatives. However, I have the secretary of the Navy's permission to invite attention to the fact that the House calculations were based upon a cost of a ration of 45 cents, while the opinion of the Bureau of Supplies and Accounts is that the true cost of a ration that ought to be allowed is at least 50 cents. In other words, I personally doubt if we can get through for 1,000 men at the rate of a 45-cent ration. I think we will possibly be to run a deficiency of about \$1,500,000. However, we are making very earnest effort, and have in the past year, and expect to continue to do so, to keep within the amounts allowed, and I have a strong hope of pulling it out.

We have kept within the amounts allowed the past year thus far by using a considerable amount of provisions that formerly we had regarded as war reserves. At the beginning of the fiscal year we had our usual proportionate accumulation of about \$15,000,000 worth of provisions. We have spent over \$9,000,000, and our reserve is reduced to about \$6,000,000.

COST OF RATION.

During the next fiscal year, 1923, while I personally think the ration cost ought to have been allowed us at 50 cents, we will try hard to make it 45 cents, and hope to pull it out. We are not asking for an amendment.

Senator HALE. Admiral, the Army seems to get along with a 30-cent ration. Now, if the Army can get along with a 30-cent ration and you have a 45-cent ration, or about 50 per cent more, do you think you can get along?

Secretary DENBY. Senator, I think it is 38 cents in the Army.

Senator HALE. I think they are planning for a 30-cent ration.

Admiral POTTER. Thirty-two cents. There are several reasons for that.

Senator HALE. I would like to have that made clear, why you cannot get along except with 50 per cent more than the Army, or so substantially that?

Admiral POTTER. The law enforces upon us the allowance to enlisted men of the Navy of certain quantities of provisions. It is not fixed by value or even by quality but is enforced by quantity.

The quantity enforced upon us in respect of rations furnished enlisted men above what is required for the Army is 36 per cent in quantity; I mean to say, in bulk of the respective components the average additional amount in quantity that we must feed enlisted men whether we wish to or not is 36 per cent greater than that of the Army. There, right away, you see is a substantial difference.

Then there is another point. We have to buy things in a different condition from what the Army does. Our proportion of tin meats is somewhat greater because of the nature of our service. That means that the relative cost of that is more expensive than the relative Army ratio because of the containers we have to have packed in, both the tins and the outside packages, the cartons, the wooden cases which must be bound in iron, and all that sort of thing, which very greatly increases their cost.

Then the other side of the shield, the Army ration costs less than it appears to. I mean the food furnished enlisted men has a higher value than the cost of the ration. Many Army posts have considerable vegetable garden and raise a fine quality and considerable amounts of vegetables. Those vegetables are used to supplement the official rations directly and by sale through the post exchanges and by sales to the officers, and the cash is taken and turned into the men's mess.

Senator HALE. That probably does not represent a very great portion of the amount the Army pays.

Admiral POTTER. I do not say it is a great proportion, but it gave that to us themselves. We got that from them just before the House hearing.

Senator NEWBERRY. Did you mention—if you did I did not say you—that the cost of freight is charged against our ration and not charged against the Army ration?

Admiral POTTER. That is correct.

Senator NEWBERRY. The Army ration is furnished delivered while in our ration the freight is included in the cost of the ration.

Admiral POTTER. Yes, sir.

Senator NEWBERRY. I think that is the principal factor.

Admiral POTTER. Yes, sir; that is very true.

Senator HALE. Congressman Kelley said that the cost of transporting the provisions is not charged to the Army ration as it is in the Navy. Is that correct?

Admiral POTTER. That is correct.

As mentioned by Senator Poindexter, most of our provisions come from east of the Mississippi River. We buy that from the Navy yard. In other words, the appropriation "Provisions Navy" must include the cost of delivery, as we think on the whole it ought to include it. If you were buying in the life, naturally you would buy it at point of delivery, and, of course, the dealer pays the freight. We buy all our stuff that way, actually; all the east coast stuff, which is the greater bulk of what we buy. The Army, we understand, buy it from one appropriation and pay the freight from another appropriation, and hence the cost of the ration does not represent what we consider to be actual cost.

Senator HALE. Admiral, would not all these items you speak of be taken care of by a ration of 45 cents, provided the Army can get along with a ration of 30 cents?

Admiral POTTER. Well, our past experience shows not. The cost of food, at least temporarily, has stopped descending. From last year, you know, the fall was considerable. Our ration cost was less than last year ending June 30, 1921—our ration was running 72 cents and down to 65 cents, something like that, nearly 7 cents in the cost to feed a man. And now our ration is running 56.6, not quite 57 cents, and the difference is represented partly in the very great care we are exercising, and more represented in the fall of edible commodities. Now, as an interesting point there, Senator, about the Army, the Army's own figures that they gave us for the cost of feeding the persons they have on transports, sea duty, is 55 cents; in other words, almost exactly the same as we are feeding our blue-jackets. That shows the difference between feeding enlisted—

Senator HALE (interposing). Do they use their own ration or the Navy ration on transports?

Admiral POTTER. They use their own ration, but use sufficient quantities to give the men on the transports what they consider adequate food.

Senator HALE. They get their stores from the Navy for that purpose—do they not?

Admiral POTTER. No, sir; unless they wanted some particular thing, which sometimes happens. Ordinarily they buy direct.

Senator HALE. I have been asking these questions because we are always required to explain these matters on the floor of the Senate, and I think we want to reply to them as fully as possible.

Admiral POTTER. To make your hearings complete, I would like to submit the naval dietary here as showing the food values of our ration as compared with other navies, and I would like to submit tables showing the additional amount paid by our Navy over the Army ration during the last 10 years.

Senator HALE. Are those tables in the House hearing?

Admiral POTTER. They were not printed. We furnished them. One of this that I have been giving you is in the House, but these tables are not printed. I think it would be a good idea to insert them here. I have this food by components, Senator Hale, and a lot of other interesting data as to other countries. I think it would be of value.

Senator PAGE. I think it would be a good idea to put that in here. (The statements are as follows:)

NAVY DEPARTMENT,
Washington, D. C. April 25, 1922.

Subject: Subsistence of enlisted personnel of the Navy fiscal year 1923.

1. The original estimates for the appropriation "Provisions, Navy" for fiscal year 1923 were prepared on the basis of a cost of 50 cents per man per day. This was the same basis upon which the appropriation for the fiscal year was made which did not cover the actual cost of subsistence. The Navy department appropriation bill (H. R. 11228) provides 45 cents per day for the subsistence of the enlisted personnel who are furnished provisions in kind.

2. The average cost of the ration during the fiscal year 1921 was \$0.6846; during the first three months of the fiscal year 1922, \$0.6423; and during the three months October to December, 1921, inclusive, \$0.5656. For the three months January to March, 1922, inclusive, advance reports have been received from a considerable number of the vessels of the fleet which indicate that the average cost during that period will be substantially the same as during the preceding three months, certain classes of vessels showing slight increases and a slight decrease.

3. The average cost of the ration during the three months period (October to December, 1920, inclusive, was \$0.7071 as against a cost of \$0.5656 for the period October to December, 1921, inclusive. This represents a decrease of 2 in ration costs during the period of one year which is in substantial agreement with the decrease in the costs of dry and fresh provisions. In other words decrease in the market prices of provisions have been reflected in the decrease in the ration costs. The more recent purchases of provisions have been at substantially the same prices of provisions consumed during the period October to December, 1921, and none of the commercial statistical agencies anticipate substantial variations in the provisions market. At least one of these is predicting that there will be a slight advance in the cost of provisions this year.

4. A ration cost of 45 cents per man per day is 20 per cent less than the cost during the six months period October, 1921, to March, 1922—the same decrease as has occurred during a period of a whole year from October, 1920, to October, 1921—with every indication that the cost of provisions will remain substantially at the same price level as at present.

5. At this time no deficiency in the appropriation "Provisions, Navy" is anticipated, but the fact that the appropriation—which was made on the basis of a ration cost of 50 cents per man per day—may be sufficient for the needs of the current fiscal year is due to two causes; first, the average number of enlisted men during the year will be less than the 100,000 upon which the estimate was predicated, and, second, the utilization of stocks of provisions on hand which had been paid for from appropriations for prior years.

6. For the fiscal year 1923 the full number of men estimated for will have to be subsisted and, by the expiration of the current fiscal year, it is anticipated that the stocks of provisions on hand will be reduced to such a limit so that there will be no reserve which can be drawn upon to offset deficiency in the appropriation for subsistence.

7. An appropriation based upon a ration cost of 50 cents per man would necessitate a reduction of 10 per cent from the current ration cost against a 20 per cent reduction proposed by the House bill. To make an appropriation even on a 50 cent basis is gambling on a declining market in view of the reports of the various commercial agencies and to reduce the appropriation to a 45 cent basis is simply increasing the odds against the department.

8. For the number of men to be subsisted during the fiscal year 1923 a difference of 5 cents in the average cost of the ration represents a difference of \$1,500,000 for the year and the difference of 11 cents between the current cost of the ration and that proposed by the committee represents a difference of \$3,300,000 for the year. The stock of provisions on hand at shore stations December 31, 1921, was approximately \$6,000,000, and if there is no substantial decrease in provision costs the entire difference of \$3,300,000 would have to be taken from this quantity, reducing the stocks on hand to less than \$3,000,000. This would be entirely too small a stock to provide for the current needs of the Navy, with no allowance for emergencies. Were it possible to concentrate all stocks of provisions on shore at one or two points the situation might not be

rious, but in order to meet the requirements of the service stocks of varying amounts must be carried at each of the more important stations in the United States and at the naval stations in the insular possessions.

STATEMENT IN EXPLANATION OF DIFFERENCE IN COST OF THE ARMY AND NAVY RATIONS.

The higher cost of the Navy ration in comparison with the Army ration can be traced to the following principal reasons:

RATION ALLOWANCE.

The law authorizes a larger quantity per diem of provisions to the Navy's man, amounting to approximately 35 per cent more than to the Army's man. Since the value of the ration is not fixed by law, the quantity of each item of food bears an important part in making a comparison of the costs of the Army and Navy rations.

TRANSPORTATION.

The Army, in the purchase of its subsistence stores, generally makes its purchases on the basis of delivery f. o. b. factory or point of origin, and arranges shipment on Government bills of lading. The cost of this transportation is chargeable to appropriations other than that to which the cost of provisions is charged, and is not included in computing the final cost of the ration.

PACKAGES.

The exigencies of the naval service require that articles of the Navy ration be delivered in exceptionally substantial and somewhat expensive packages to protect the Government against losses due to repeated handling, climatic conditions and comparatively long periods in storage. In making a comparison of the cost between the Army and Navy rations, it must be remembered that the provisions mentioned above do not generally obtain in making purchases of the Army ration, since at a great majority of the Army posts supplies are purchased locally in such quantities only as are required for immediate consumption, thereby requiring only the most inexpensive and fragile containers. The use of item of containers materially increases the cost of the article of the Navy ration.

LOCATION.

If 1000 men in the Navy were located in barracks on shore they could be fed for practically the same amount as the same number of men in the navy, regardless of the increased quantities allowed the Navy. Men in barracks have two principal meals each day. A large percentage of the men are on liberty in the afternoon and obtain their suppers outside of the barracks, which results in a considerable saving in the cost of subsistence. The commissary for men in barracks can be furnished with fresh provisions from the immediate vicinity at low prices. Enlisted men in the Navy must be furnished with three full meals each day. When ships are at sea or away from port for a length of time expensive items of tinned fruits, tinned and smoked meats, and vegetables, tinned butter, etc., must be used.

AUXILIARY ISSUES.

The cost of the Navy ration includes issues to enlisted men of the engineer and dynamo forces when standing night watches between 8 p. m. and 8 a. m. while under steam, which adds from one-half to 1 cent to the cost of the ration.

ADDITIONS TO ARMY RATIONS.

In order to permit proper dietetic varieties of the Navy ration, all substitute articles are furnished by the Government, there being no payments to the sailor for the purchase of substitute articles, as is the case in the Army, where

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increments to the regular ration are received from monthly payments to each company mess of its share of the profits from the post exchange.

VARIETY.

The Navy ration with its authorized substitutes provides a much greater variety and consequently a much greater number of items than does the Army ration. While a varied ration is necessary in the Navy because of the conditions of life aboard ship and at sea, the large number of different items of food increases the cost of the Navy ration through increased losses.

CONDITIONS OF SERVICE.

Men living aboard ship under crowded and otherwise unfavorable conditions demand exceptional care and need to be kept contented. It has been found that good food, well cooked, and in sufficient quantities has added more to the contentment and successful operation of a ship than any other one thing. The men of the Navy are subject to call night or day. The work required of them is usually hard manual labor. It is absolutely essential to their physical as well as mental welfare, that their bodies be kept well nourished.

EXPERT ADMINISTRATION AND SIZES OF ORGANIZATIONS.

A large percentage of the enlisted men of the Navy serve on vessels such as destroyers, subchasers, tugs, etc., where the commissary department is not administered by an officer of the Supply Corps. On vessels of this type the general mess is under the charge of the commanding officer, who is experienced in the preparation of food or in the economical administration of commissary matters. Purchases are made in small quantities at ports where there are no Navy contracts or where refrigerating facilities are not obtainable. The refrigerating facilities of these vessels are inadequate, which results in excessive losses of fresh provisions or large quantities of canned provisions. In addition, it costs considerably more to feed groups of 50 or 60 men than it does large organizations of 1,000 men, such as are found on battleships and the larger types of vessels. In the preparation of this excessive cost, the returns received from the sale of surplus food in the quarter, 1922, show the cost of the ration on vessels not carrying a commissary to be \$0.6977, as compared with \$0.494 for vessels with commissaries, an increase of \$0.2037 per ration per day.

FOOD VALUE.

The following is quoted from a report prepared by Medical Director G. D. Gatewood in 1911 with regard to the nutritive value of the Navy ration compared with the ration of foreign navies:

"It is difficult to compare the United States Navy ration with the ration of other countries except in more or less general terms, as information is not available or is not sufficiently explicit. The nutritive value of nutrients in a ration as issued can not be considered as all available, as they are not all ingested, the question of waste being of much importance. It is probably varying with methods of different nations. Besides, a ration containing much of its starch from rice will probably have a smaller waste in preparing food than one that obtains much of its starch from potato, and calculations based upon average percentage of fat in food are subject to wider variations than those based upon olive oil and other vegetable sources.

"In general terms, the United States Navy ration is not so good as the ration of any other navy. The nutritive ration in the Navy is usually much narrower, and in not a few there is the extreme point of view, of obtaining carbon to some extent from an additional allowance to the engineer force. At any rate, these factors cause a characteristic difference in comparing the ration of the Navy with others.

"However, the following may be considered under the limitations indicated:

Naval dietaries.	Eaten.			Digestible.			Utiliz- able fuel value.	Nutri- tive ratio, 1 to —
	Pro- tein.	Fat.	Carbo- hy- drates.	Pro- tein.	Fat.	Carbo- hy- drates.		
	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Cal- ories.</i>	
States Navy (sea ration)...	138	269	556	127	253	540	5,180	8.7
States Navy (fresh pro- visions).....	145	135	444	134	129	431	3,553	5.3
States Navy (usual).....	142	192	492	131	163	478	4,265	6.7
States Navy (engineer force).....	182	218	624	168	267	606	5,174	6.3
se Navy (average).....	126	56	607	116	89	33	3,174	6.1
Navy (average).....	170	34	524	156	32	508	3,078	3.7
Navy (engineer force).....	184	35	608	169	33	590	3,407	3.9
Navy (average).....	127	110	601	117	104	583	3,891	7.2
Navy (engineer force).....	175	149	728	161	141	706	4,938	6.6

STANDARDS.

enlisted man of the Navy is accustomed to a certain standard of food; contract of enlistment with the Government provides that certain quantities of food be issued to him. The quality of the Navy food is, and has been such as to establish the reputation that the United States Navy is the best fed Navy in the world. The only way to materially reduce the cost of the Navy ration is to reduce the quantity and the quality and such a step would be unwise.

COST OF RATION IN RELATION TO COST OF PROVISIONS.

on in present prices of provisions in the United States under prices one year ago:

fish provisions.....	Per cent.
7 provisions.....	29
on in cost of ration for second quarter, 1922 (0.5656), under sec-	22
quarter, 1921 (0.7071).....	20

Reason why the reduction in the cost of the ration is not the same as the reduction in the cost of food is because the cost of the ration used is the average cost in all parts of the world, whereas the food prices represent purchases in the United States only.

Comparative cost of ration, Army, Navy, and Marine Corps.

	Army (calendar year).	Navy (fiscal year).	Per cent of increase.	Marine Corps.
	\$0. 2144	\$0. 3503	63	\$0. 2690
	. 2335	. 3691	58	. 2884
	. 2378	. 3659	54	. 2501
	. 2341	. 3761	61	. 2678
	. 2439	. 3711	52	. 2696
	. 2496	. 3656	46	. 2607
	. 2801	. 3714	33	. 2753
	. 3302	. 43807	32	. 3421
	. 4820	. 4853		. 4449
	. 4975	. 5571	12	. 5053
	. 5264	. 6842	28	1. 7413
	. 3852	. 6846	78	1. 7413
quarter).....		. 6423		2. 7049
nd quarter).....	\$. 3439	. 5656	64	2. 5610
				2. 6063
				2. 4738

¹ Includes surveys.
² Outside United States.

³ Within United States.
⁴ Estimated for 1923.

Quantitative comparison, Army and Navy rations.

	Army.	Navy.		Army.	Navy.
Meat, fresh.....	20.00	28.00	Sirup.....	0.32	0.11
Flour.....	18.00	18.00	Flavoring extract.....	.014	
Baking powder.....	.08	.08	Cheese.....		
Potatoes.....	20.00	28.00	Baking soda.....		(1)
Fruit, dried.....	1.28	3.00	Hops.....		.5
Coffee.....	1.12	2.00	Macaroni.....		.6
Sugar.....	3.20	4.00	Mustard.....		.37
Milk, evaporated.....	.50	1.00	Pickles.....		.37
Vinegar.....	.16	.285	Tomatoes.....		
Salt.....	.64	.57			
Pepper.....	.04	.07	Total.....	66.508	8
Spices.....	.014	.011			8
Lard.....	.94	1.12			24.13
Butter.....	.50	2.00			

¹ As needed.

66.508+24.133=36 per cent.

Admiral POTTER. The nutritive value of our ration is 8.7, and the next best is the British, 7.2; and the Japanese is 6.1, and the French goes as low as 3.7.

Senator NEWBERRY. While on that, on page 37, line 9, I notice "Subsistence of members of the Naval Reserve Force during period of active service." Will you turn to your estimate? I am curious to know what amount you had allowed in your estimate for that purpose.

Admiral POTTER. Nothing was allowed in that calculation for members of the Naval Reserve on active service. It is in the law, but we did not include it.

Senator NEWBERRY. I suppose because they did not expect to give them any active service; is that right?

Admiral POTTER. I think that is it.

RETAINER PAY AND ACTIVE-SERVICE PAY OF NAVAL RESERVE FORCE.

Senator NEWBERRY. We can close that whole situation up, then, if you will kindly turn to page 32, line 22, and let me have an analysis of that item of \$5,689,000, retainer pay and active service pay of members of the Naval Reserve Force. Will you let me know how much of that is retainer pay, class 1, and pay of class 1, and pay for active service of the Naval Reserve Force? We will know exactly what your item means.

Admiral POTTER. Yes, sir; I think we have that right for Newberry. This gives some of the particulars, you know. That was the amount of the calculation, you know; that is about \$2,000,000 for persons they expected to be transferred from the active Navy to the reserve force.

Senator NEWBERRY. As far as the estimate goes, there was no estimate made for active service, Naval Reserve Force?

Admiral POTTER. No, sir. The estimate, as submitted by the Navy Department under "Pay of the Navy," page 32, lines 21 and 22 of the committee print, did not include pay for members of the Naval Reserve Force on active duty, either training or otherwise.

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

(The statement is as follows:)

Estimate for pay of Naval Reservists, class 1, fiscal year 1923

Class 1a, 330 officers, at \$500 per annum.....	\$
Class 1b, 1,500 men, at \$210 per annum.....	
Class 1c, 1,118 men, at \$670.32 per annum.....	
Class 1b, 2,258 men, at \$1,015.92 per annum.....	2,
Adding pay for class 1a, at \$220.....	
Total	3,

NOTE.—Class 1a. Number on March 1, 419, of whom 83 will be discharged prior to July 1, 1922, and 11 during the fiscal year 1923, making total for the year 330.

Class 1b. Number on March 20 approximately 3,500, of whom about 2,500 were discharged prior to July 1, 1922, and about 1,000 during the fiscal year, making the average for the year 1,500.

Class 1c. Number on March 20, 938, which number is being augmented at about 19 per month.

Class 1b. Number on March 20, 1,847, which number is increasing at about 54 per month.

NOTE.—If legislation is enacted authorizing the transfer to the Naval Reserve of men with more than 12 years' service who would be eligible for transfer at the expiration of or during their current periods of enlistment, estimated by the Bureau of Navigation that 4,500 men would transfer, the average pay would be \$720 per annum so that the amount required for the estimated cost given above would be \$3,240,000, making a total estimated cost of \$6,835,000 instead of the \$3,240,000 carried in the estimates as submitted to Congress.

Senator NEWBERRY. I suppose in making that up you were given some direction from the department?

Admiral POTTER. By the Bureau of Navigation; yes, sir. I furnished us the distribution and duty of the officers and men on the committee of the Committee on Appropriations of the House, which amounted about \$2,000,000. This addition was made after an examination and conversation at the hearing between the Chief of the Bureau of Navigation and the chairman of the subcommittee.

Senator NEWBERRY. I would like to ask the Secretary a question. There are no appropriations carried in this bill for the Naval Reserve except rent of armories, etc., of \$50,000?

Secretary DENBY. Yes.

Assistant Secretary ROOSEVELT. We asked for \$200,000 you know.

Senator NEWBERRY. That would be nothing for the training of the Naval Reserve?

Secretary DENBY. No.

Senator POINDEXTER. How do you explain this language, "and active-service pay of members of the Naval Reserve, \$689,233"?

Admiral POTTER. That covers what we call class 1a, 1b, 1c which is not that part of the Naval Reserve Force that I have referred to.

Mr. REED. Class 1a is the officers of the fleet Naval Reserve who covers the men with less than 12 years' service who enter the Naval Reserve. They are being disenrolled as their enlistment expires and are not being permitted to reenroll, so that by the next fiscal year under the plans on which the estimate is based the Naval Reserve Force, so far as any who receive

pay are concerned, will consist of class 1a of officers and classes 1 and 1d of transferred men of 16 and 20 years' service.

Senator NEWBERRY. Do I understand both those classes are ex naval officers and ex-enlisted men of long service?

Mr. REED. Yes, sir.

Senator HALE. Are they on active duty?

Mr. REED. There are a few on active duty at the present time. There was no provision made for continuation of any reserves on active duty next year.

Senator HALE. This item reads "for retainer pay and active-service pay of members of the Naval Reserve Force." How much of that is active pay?

Mr. REED. No money there. We have not changed the wording of the appropriation, but in making the estimates no provision was made for active-service pay of members of the Naval Reserve Force.

Senator HALE. Then it should not read for active pay.

Mr. REED. Situations might come up in connection with that that would require calling them, and if you changed the language from year to year in that particular we might fail to get back the provision for the active-duty pay when Congress was providing the money for the purpose.

Senator HALE. But aside from that this gives the impression we are furnishing active-service pay for members of the Naval Reserve Force, which we are not doing; is that correct?

Mr. REED. That is correct. The bill as it stands now carries no money for that.

Senator HALE. And this \$5,689,000 is not for active pay at all, but is for retired officers and men of the Navy; is that true?

Mr. REED. Not for retired officers and men, but for members of class 1 of the Naval Reserves who have had former service in Regular Navy.

Secretary DENBY. It is the retainer pay.

Mr. REED. It is the retainer pay; yes, sir. The 16 and 20 y are in a category somewhat similar to the retired men, exc are subject to recall for duty in cases of emergency.

Senator HALE. But they are not on active duty?

Mr. REED. They are not on active duty.

Admiral POTTER. Nor on the official retired list.

Senator HALE. So this would not come under what we ordinarily mean by "naval reserves"?

Secretary DENBY. No; and there is nothing in this for what you would ordinarily mean by the term "naval reserve." We have in the House a bill for a naval reserve, which pass, and which will contain an appropriation for their and pay.

Senator HALE. By developing a real naval reserve?

Secretary DENBY. Developing a real naval reserve beyond reserve.

Senator HALE. I hope it will pass.

Secretary DENBY. This is simply for what men are under the law to go in the fleet reserve.

Senator POINDEXTER. Has any action been taken on that bill?

Secretary DENBY. No; it has not come out of committee.

nt Secretary ROOSEVELT. It has not come out of committee have not had a hearing on it.

r SWANSON. As I understand you, this language permits y active-service pay to members of the Naval Reserve Force, ave not any appropriation with which to do it. You did e the language of the appropriation, but the appropriation carry enough to permit you to do it?

il POTTER. That is it.

r SWANSON. I do not think it well to change the law. You nt him in an emergency and this would permit you to call we do not appropriate enough money to permit you to do it, a few cases where the service of the Government might

ry DENBY. The point I want clear is that this is the fleet the legal fleet reserve. Men have a legal right to go in the ve under certain conditions and this appropriation would i. The other is a voluntary naval reserve which we can reject as we choose.

r SWANSON. This is the fleet reserve. Where a man has ie Navy for 16 or 20 years, and instead of retiring him we law in 1916 by which we could get these men and pay them half or one-third, according to the service, and some one- gular pay, but subject at any time to the orders of the hey were trained men, trained machinists, trained gunners. f paying them full pay we decided this was the cheapest ways have a reserve that the Navy could order in 10 minutes good men competent to run their guns, machinery, and g. That is what this is available for.

r NEWBERRY. You can not order these men on active service y want to serve.

r SWANSON. Yes; you can.

ry DENBY. We can order the fleet reserve back at any time

r NEWBERRY. What is that part of the law that says no f the reserve force can be put on active duty except by his

ry DENBY. It can not affect the fleet reserve.

r NEWBERRY. I wish the judge advocate would look that up. ie law is in that language, with no exception.

lowing is an extract from an opinion rendered by the Judge General of the Navy and approved by the department on r 23, 1921:

of the Fleet Naval Reserve transferred thereto from the Regular 16 or 20 years' service are subject to the laws and regulations gov- Navy, and may be ordered to perform active service at any time or riod that the department may deem necessary, either for training other reason, and consequently it was not necessary to have an provision of law which would require them to perform duty for in the event that a transferred member of the Naval Reserve Force obey an order to perform duty, he may be disciplined as a court- y determine.

ry DENBY. It does not apply to the fleet reserve.

nt Secretary ROOSEVELT. I am sure it does not, Senator; I that since you asked about it yesterday.

Secretary DENBY. The purpose of the service pay is to bind the men to service. In the other reserve he is paid proportionate to the service he is performing.

Senator SWANSON. Mr. Secretary, do you not think this fleet reserve has been an economical way of keeping a reserve that is very efficient?

Secretary DENBY. I think it has.

Senator NEWBERRY. Would not this language be better if it is understood by every one class 1 is for fleet reserve?

Secretary DENBY. I do not see why it should not be changed to read that way.

Senator NEWBERRY. In the appropriation bill it is unfair to confuse the minds of Congress or the public by the statement that an appropriation is for the volunteers, like the National Guard, when it is for the Naval Reserve Force. An appropriation like this, that very proper for half-trained men that you have some sort of st on, ought not to be confused in the appropriation.

Secretary DENBY. I think you have a very good point.

Senator NEWBERRY. Normally, it is a very proper expenditure of the Navy Department for trained men. I do not object to that; I think it is fine. But my objection lies entirely to charging the Naval Reserve Force under the phrase "active-service pay," or any other phrase, when we all know it is not for that purpose at all.

Senator SWANSON. The only objection is that you do not get enough to enable you, except in a few isolated cases, to pay them. I can see there might be a man with special knowledge, special ability in the reserve, and you could use 5 or 10 men, and you prohibited from doing it in other instances for want of money to do it, except in an isolated case.

Secretary DENBY. I think it should express what is meant, and we can submit an amendment to cover it.

Assistant Secretary ROOSEVELT. I would like to not even call it "reserves." I would like to get some other name for them.

Senator NEWBERRY. I wish you would.

Assistant Secretary ROOSEVELT. I want to distinguish between two.

Senator SWANSON. When the bill was drawn we did not want to put it "retired," and we put it "fleet reserve" so everyone could know they served in the fleet, that they were regular men. There was a prejudice against retired people and a prejudice against reserve, so we put it "fleet reserve" knowing we would have a long service of first-class men.

TRAINING OF NAVAL RESERVE.

Senator NEWBERRY. For the sake of the record I will just read what the law is in this bill:

Provided, That no part of the money appropriated in this act shall be used for the training of any member of the Naval Reserve Force except with his own consent.

Secretary DENBY. There is in this bill no volunteer Naval Reserve Force.

Senator NEWBERRY. I am not talking about volunteer Naval Reserve Force. I am talking about the Naval Reserve Force.

Senator SWANSON. Let me explain that. You can not order them training unless they want to take the training, but if they do not have the training they go out, as I understand it. We used to be able to order a man to take training when he was in the midst of business, and the law was passed that he can not be compelled to do so. You can not order him to go to training if he does not want to go to training, but the law gets him out if he does not take the training. That does not prevent you, however, in case of emergency from getting him if you want him for service but you can not get him for training unless he wants to take the training.

Assistant Secretary ROOSEVELT. After we have called him for service and he does not report we court-martial him and he goes out.

Senator SWANSON. And if he does not take training he goes out.

Senator NEWBERRY. But the law says you can not order them on active service unless they consent.

Senator SWANSON. You can not order them for training, but as long as he stays in the reserve you can order him for service at any time you want to, and if he is that kind of fellow who does not want to take training he goes out automatically.

Senator POINDEXTER. The Fleet Naval Reserve is a part of the Naval Reserve.

There is hereby established, under the Department of the Navy, a Naval Reserve Force to consist of six classes, designated as follows and as hereinafter described:

First. The Fleet Naval Reserve.

NAVAL SUPPLY ACCOUNT.

Admiral POTTER. Senator Hale asked me to say something about the naval supply account and stores in general.

Senator HALE. Yes; we want to hear about that.

Senator PAGE. Admiral, I think you can proceed.

Admiral POTTER. Senator, some of the members of the committee expressed an interest yesterday in the stores on hand, I believe, and particularly in the operations of the naval supply account and in the disposal of surplus stores.

I believe there also was an inquiry as to the amount of stores required to be under a particular bureau, by which I assume is meant stores eventually paid for by the appropriations allocable to a particular bureau. I have a lot of information on that.

SURPLUS STORES.

I will take up surplus stores first. We have an elaborate system of handling our surplus stores and we believe it an effective one. Each yard is continually taking inventories of the stock on hand in specific classes which we direct them to take from Washington. Each yard, then, sends in to us an inventory of the material they have on hand in the particular classes, we carrying 66 different classes of material.

Senator HALE. How often do they make that inventory?

Admiral POTTER. The last inventory was ordered in November, and the classes come in as fast as they are completed, so the operation is more or less continuous.

Senator NEWBERRY. What is the date of your last inventory. I assume, is what the Senator wants to know.

Senator HALE. That is it.

Admiral POTTER. You see we do this by classes, so there is a complete inventory being made of those classes. Of course, it is possible to stop the operations of the Naval Establishment and take an inventory, so we take it by classes, and still have to carry on general business. The inventory is continuous.

Senator HALE. So you keep each class up to date, do you?

Admiral POTTER. Yes, sir; so far as we are able to. And then that surplus list that comes in from each yard is compared with the plus list of other yards and with the needs of all other yards. If it is found deficient at a particular yard is supplied from the other yards, and we send each particular yard what they need. The rest is disposed of by public sale and public advertisement over the United States, and by the reception of sealed bids and award to the highest bidder.

Senator PHIPPS. Let me see if I understand that situation. Take any date, March 1, for instance. March 1, say, on 10 or a dozen different classes you have just received inventories from the various yards; the inventories of the other classes had been filed or reported to you only two or three months previously.

Admiral POTTER. Yes, sir; they are working on them all the time.

Senator PHIPPS. But until those other classes are changed you would figure you had approximately the amounts of the various items of the entire inventory on hand; is that correct?

Admiral POTTER. Yes, sir; that is correct.

Senator PHIPPS. Now, let us get at the practical use of that. We had a gentleman representing the Bureau of Engineering before this committee and he had no information as to the percentage of material that would be required in his department for construction of these different boats, and he could not tell us whether any considerable percentage of that was on hand in the Bureau of Supplies and Accounts or not. Was not his department furnished with the information regarding the various classes of material that engineering would naturally use?

Admiral POTTER. Engineering can find out at any time that they ask us, pretty closely, the amount, or the money value, of the stores or materials on hand that they might make use of eventually.

Senator PHIPPS. To put it in a little more practical form, the question I asked was this: In making up your estimates for the coming year you figured on a certain amount for materials and a certain amount for labor?

Admiral POTTER. I've no doubt that the bureau concerned did that.

Senator PHIPPS. How much of that material was available in the Bureau of Supplies and Accounts, or in any other bureau? He had no knowledge of that.

Admiral POTTER. Under "Engineering"?

Senator PHIPPS. Yes.

Admiral POTTER. Approximately \$140,412,859, if I understand the point.

Senator PHIPPS. Out of that total of \$140,000,000, if he were going to expend \$30,000,000 or \$40,000,000 in materials, it would be possible

aim to find out whether the particular article he desired was in or not by making inquiry, would it not?

Imiral POTTER. Absolutely, sir.

Senator PHIPPS. That was the point.

Imiral POTTER. Of course, I did not hear the conversation and I am not sure what the Chief of the Bureau of Engineering understood of the query. But he can find out at any time what material is on hand. Very often we have to telegraph to a yard to find out what peculiar material is on hand at that yard. But we can tell at any time whether the material is on hand or not.

Senator PHIPPS. What is your definite method of determining and ordering surplus?

Imiral POTTER. The schedules come in from each yard, as I have said, and then the deficiencies in other yards are filled. Then what is left over and what is not needed for current use, is referred, if it is anything of a peculiar nature, to the bureau that is likely to use it, with a categorical request for information as to whether it should be sold or not. If it is general supplies, that Supplies and Accounts knows all about without any other technical information, we handle ourselves. The bureau concerned then comes back and says, "Yes; sell it," or "No; we do not think it ought to be sold."

Senator PHIPPS. At what rate have you been making sales to outside during the past few months?

Imiral POTTER. We have been writing down our material under a plan which allows us to do so to the current market price. There are a little over 30,000 specific items in the Navy to-day. There [printing book] is our standard stock catalogue, showing the different classes of items.

Senator HALE. Is that available to every bureau and department?

Imiral POTTER. Yes, sir; every bureau has numerous copies of it and every ship has a copy, and we simply do not give it to every manufacturer because it costs us so much money; but the Army makes frequent requests and it has copies, and the Public Health Service has it and the Coast Guard relies on it.

Senator HALE. And does it include almost all your supplies on hand?

Imiral POTTER. Every item in the Naval Establishment is listed there by its class, by its specification number, by its code number for pricing, its stock number, and the notation of the standard amount of stock carried at each navy yard. It is the most complete thing of the kind in the world.

Senator PHIPPS. I ask, because the heads of several bureaus have told me they did not know whether or not you had certain articles on hand.

Imiral POTTER. They can always find out, Senator. I do not understand that statement. We might not be able to tell right away at the bureau, because it is too much to carry all the books of all the navy yards in the Bureau of Supplies and Accounts, and, in fact, it would be an uneconomical and improper method of doing it.

Senator POINDEXTER. What is that book?

Imiral POTTER. Navy Department Bureau of Supplies and Accounts stock catalogue.

Please understand, this does not show the actual quantities on hand at the different yards, but this is the standard.

Senator PHIPPS. But your office records do show?

Admiral POTTER. Yes, sir.

Senator HALE. The office record is available to the department that wants to use it, is it?

Admiral POTTER. Yes, sir. I want to make clear to you that by the office record I mean the records of the offices in the respective yards. We do not have a record here at Washington that shows all that.

Assistant Secretary ROOSEVELT. I think Admiral Robison's statement—this is from memory again—was based upon the fact that he did not regard it as a matter of importance to his appropriation to know just how much there was of each individual article on hand, because he had to pay for it from his appropriation anyhow. Now, that is my memory of the conversation. I may be incorrect on it.

Senator HALE. I do not think that was the point.

Senator NEWBERRY. The point we had under discussion was how to reduce the supply fund by the use of the supply fund by the various bureaus.

Assistant Secretary ROOSEVELT. Was not that Admiral Taylor?

Senator NEWBERRY. Both of them. Admiral Taylor's statement was that he could not get anything from the Bureau of Supplies and Accounts except at the full market price.,

DISPOSITION OF SURPLUS STORES.

Senator PHIPPS. You made the statement that when you determine a surplus you have authority to reduce that surplus stock to the existing market price?

Admiral POTTER. Yes, sir.

Senator PHIPPS. But when you try to sell, if you have a bid at, say, 50 per cent of that market price, do you accept it or reject it?

Admiral POTTER. Usually we accept it, sir.

Senator NEWBERRY. Right on that point. You accept it without notifying the various bureaus that might use it?

Admiral POTTER. Because they have already passed upon that same article.

Senator NEWBERRY. At the market price?

Admiral POTTER. Yes, sir.

Senator NEWBERRY. But how about it at half price?

Admiral POTTER. If they wish it reserved, regardless of price, it is reserved. The surplus record is referred to the bureau concerned to know whether they wish to hold any of the material. At that stage the price doesn't enter into the matter. Every bureau has in its possession at the present time a great heap of material cards that they are passing on to us as to whether they will need the material or not in the next two years. They hardly have one bunch of cards out of the way before we throw another bunch in on them.

Senator NEWBERRY. Is it feasible when you accept a bid that is lower than the market price to notify the bureaus that might use the material, that it is to be sold at less than the market price? Is it practical or feasible to do that?

al POTTER. No, sir; because it is not the price, except in a few cases, that would govern them as to whether they want it or not. Take lumber. Lumber has been high in the past, now, even pine lumber has been up to \$80 when it ought to be at \$35. That is written down. If they want the lumber show us on any reasonably sound authority anywhere that the market price of it is \$35 we reduce it. We do not wait for that; we have already issued price bulletins on the greater part of our 31,000 or 32,000 articles, and have corrected the price on 10,000 in price bulletins sent out within the year.

or NEWBERRY. I am not making myself clear, but the point is a simple one, that a bureau chief with a limited appropriation they all have, or as we think they have and ought to have, if he found he could get some material at half of the market price would be very much more inclined to get it than he would be if he had to have his appropriation depleted by having to pay the true price?

al POTTER. Yes, sir; he would be more inclined to do so if the material of the same kind would without doubt be re-obtainable within a reasonable time.

or NEWBERRY. If he was a normal man, when there is no other way of getting it out of the naval supply and no order compelling him to do it, he would naturally buy fresh materials of various kinds rather than the old stock?

al POTTER. We check up the requisitions so that he is not allowed to put it that way, to buy fresh materials if we have stock on hand that we could reduce to a price that it could be bought at.

We have a complete and elaborate system and it works the cost of millions of dollars a year.

or NEWBERRY. The system is fine, but I think it might be improved, and I am trying to find out if it is feasible to take one step, and when you have a bid of 50 per cent of the market price to satisfy the bureaus concerned it is to be sold at 50 per cent of the market price. Might that make a change in their judgment as to the necessity of using it?

al POTTER. I can see that it might in isolated cases, but on the total number I think it would be insignificant. Occasionally they want to do specific things, they want to use bar pig iron at a low value for old scrap. People say—I do not want to refer to individuals or to individual bureaus—but they will say "We could get it at scrap value for so and so, and after all it is iron and you have it on hand, why not let us have it at scrap value?" Because of a false economy, that is improper business. In other words, if a bureau wishes to draw and charge against specific appropriations for rate property whose true value is higher, we have always allowed that—we have considered it improper to allow that to be done.

or NEWBERRY. But you have fixed it at half price when you sell it at half price, and the bureaus do not know that.

al POTTER. Yes; in effect they do.

tant Secretary ROOSEVELT. I am going to ask you a question, if I may. Is not this correct, to say that you never sell material at below the market price without first ascertaining from the bureaus that they have no use for that article whatsoever?

Admiral POTTER. Yes, sir.

Senator NEWBERRY. At the market price?

Assistant Secretary ROOSEVELT. No.

Admiral POTTER. That is correct as far as it goes, but the point the Senator mentions—I can see what he means. After we have advertised a particular item and got a bid on it we regard ourselves honor bound to sell to the highest bidder and not to use a bureau force the bidder to relinquish his implied right of purchase after have been given full opportunity to come and say whether they want it at all. If they want to use it at all, it is held for them.

Senator SWANSON. Do you reserve the right to reject bids if normally low?

Admiral POTTER. Yes, sir; that is the practice in every Navy contract.

Assistant Secretary ROOSEVELT. I am interested in just the point the Senator brought out. I thought the one we put that question was engineering. Have you any use for these at all; and that may have you any use for this at any price.

Admiral POTTER. That is what we have always assumed hitherto.

Senator NEWBERRY. But they know that the policy of the department is that they will be charged the full market price and no

Admiral POTTER. Yes, sir.

Senator NEWBERRY. Would their point of view be changed if they knew they were going to get it at half price?

Admiral POTTER. Practically I do not think there would be change except in a very few instances.

Senator NEWBERRY. That may be so, but I think there are chiefs who would strain themselves to get material at half price make a splendid showing for their bureau.

Admiral POTTER. If they do not want material at all, I do not believe there would be 2 in 100 that the reduction would make them withdraw the material, because if they want the material and did not otherwise have use for it it would be an economic waste.

Assistant Secretary ROOSEVELT. Could we not perhaps obviate criticism by having it definitely understood—I thought it was when that query was put up to the bureau it was understood to be. "Gentlemen, on this article have you any use for it at any price?"

Admiral POTTER. That is what we have understood.

Senator NEWBERRY. It is not done in practice; it is at market price.

Assistant Secretary ROOSEVELT. I say when we make our bids we put it in that way.

Senator NEWBERRY. That is all you ask them: "Do you want to buy at the full market price our material in the supply fund?"

Admiral POTTER. That is not the question.

Secretary DENBY. We ask them whether the bureau has that material?

Admiral POTTER. Yes, sir.

Secretary DENBY. And if they have no use for it then we put it on the open market and ask for bids.

Senator NEWBERRY. They know it would be at the market price in any event.

niral POTTER. They do know that.

ator NEWBERRY. And never anything less.

etary DENBY. They do know that. I do not see how you well invite bids and then refuse to sell to the highest bidder?

ator NEWBERRY. That is another question.

niral POTTER. It seems to me an unsound business thing to invite bids and then say: "Before we accept your best bid we to see if we can sell it for more than that price or as much."

ator HALE. At least you could let your bureaus know when you fering for bids and they could bid also?

istant Secretary ROOSEVELT. We can follow Senator Newberry's stion along this line; we can go to the bureaus and let them stand that when we ask them that question about an article, an have they any use for it at any price.

niral POTTER. We could use that language on every request.

ator HALE. Let them come in and bid.

ator SWANSON. The Secretary of the Navy is the arbiter as to he will buy and what he will sell.

niral POTTER. Yes, sir.

ator SWANSON. Therefore he has the power to bring the two together, and in my experience he exercises it.

niral POTTER. Senator. I do not think there are two cases in a ed where bureaus would avail themselves of it.

ator NEWBERRY. They have not had a chance to prove it.

ator SWANSON. The two minds get together through the Sec- of the Navy, both the buyer and the seller, and the two minds come together through the Secretary, and you say take this at rice.

niral POTTER. There would be a tendency for each bureau to I might need that 5 years from now or 10 years from now."

is a tendency now to hoard stock—what Colonel Roosevelt he "magpie game"—hide it and hoard it.

ator HALE. You have a supply fund now of substantially \$250,- 00, have you not?

niral POTTER. Yes, sir.

ator HALE. What does that mean, that you have supplies on the market value of which would aggregate \$250,000,000?

niral POTTER. Yes; at the present value as established at the it market prices. Of that at any given moment there is about 00 or \$700,000 cash that we need to pay bills as it accumulates. we are constantly from that amount declaring material surplus.

VALUE OF SURPLUS STORES DISPOSED OF.

ator PHIPPS. By the way, I do not think I got your answer to uestion. At what rate have you been disposing of surplus?

niral POTTER. Money values?

ator PHIPPS. Money values in the last few months, if you have onveniently there.

niral POTTER. I will give the total first. The estimated total of the material declared surplus to date—this is not the sales; the amount declared surplus.

ator HALE. After this is over I want to go on with mine.

Admiral POTTER. This is the amount declared surplus to date, not counting the value of the ships that we have sold, \$240,000,000.

Senator PHIPPS. Surplus?

Admiral POTTER. Declared surplus. Of that \$240,000,000, the book value of the sales we have made has been \$190,000,000. Of that book value of \$190,000,000, we have received cash, up to last Saturday, \$113,222,320.

Senator POINDEXTER. Who owes you the rest?

Admiral POTTER. The rest is the difference written off between the book value and the cash we received at the time of sale. In other words, we have recovered a little over 60 per cent of the book value, which I venture to think is extremely high, particularly when the market has been falling for some time.

Perhaps you would not be interested in that, but I have it by classes of materials.

Senator SWANSON. That does not indicate any sales made definitely for which no collections are made?

Admiral POTTER. No; except collections are current every day.

Secretary DENBY. When you used the figure \$113,000,000 there, you used the selling price?

Admiral POTTER. The money received, sir.

Secretary DENBY. Then, is there more money to come in on that?

Admiral POTTER. No, sir.

Senator PHIPPS. You got \$113,000,000 for what you valued at \$190,000,000?

Admiral POTTER. Yes, sir.

Senator SWANSON. Your language indicated you had sold how much?

Admiral POTTER. We had sold \$190,000,000 worth, to put it that way.

Senator SWANSON. And got \$113,000,000. That would indicate you had not collected the purchase price of these goods. That is not the case?

Admiral POTTER. No, sir.

Senator SWANSON. In other words, that was simply the book value?

Admiral POTTER. Yes, sir.

Senator SWANSON. The book value of \$190,000,000 that you carried on your books you have gotten \$113,000,000 for?

Admiral POTTER. Yes, sir.

Senator SWANSON. That is what I wanted to make clear.

Senator NEWBERRY. Was that the value as it had been written down, or the original cost?

Admiral POTTER. No, sir; we had written down about \$25,000,000.

Senator NEWBERRY. The \$190,000,000 worth, you think, would have cost about \$215,000,000?

Admiral POTTER. Yes, sir, at least that.

Senator NEWBERRY. So, actually, you got 50 per cent of the cost.

Admiral POTTER. Yes, sir; counting in the war increment.

Shall I mention ships?

Senator HALE. Admiral, I want you to explain about this fund first.

Admiral POTTER. The fund on March 1—

Senator HALE (interposing). Was \$250,000,000, was it?

Admiral POTTER. \$255,000,000.

ator HALE. Now of that \$255,000,000, this \$113,000,000 surplus constituted a part?

miral POTTER. No, sir; that \$255,000,000 is in addition to the \$100,000.

ator HALE. In addition?

miral POTTER. Yes, sir; this is what is left.

ator HALE. Therefore, you have supplies on hand aggregating \$100,000?

miral POTTER. In the naval supply account.

ator HALE. And aside from that you have \$115,000,000 in cash?

miral POTTER. Turned in to the Treasury.

ator HALE. That goes back to the Treasury?

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ator HALE. Now, if you want to reduce that \$255,000,000 fund, the Secretary said you did, by \$100,000,000, how will you do it?

miral POTTER. By going ahead on the same process as we are doing.

ator HALE. By turning over free of charge to the bureaus certain articles which you have in that fund?

miral POTTER. No, sir; not to the bureaus. We must sell it to the public precisely as we have sold this \$113,000,000.

ator HALE. Why must you sell it to the public?

miral POTTER. Because the law requires when sold to the public it must be charged against the appropriation concerned, otherwise Congress would be allowing the Naval Establishment to draw upon a fallacious basis entirely. They would appear to draw annually a certain amount of money for the Naval Establish-

ator HALE (interposing). Then you sell it, and the money received from the sale is returned into the Treasury?

miral POTTER. Yes, sir.

ator SWANSON. And when you sell to certain bureaus it is paid for their appropriations?

miral POTTER. Yes, sir. At least \$100,000,000 of this \$255,000,000 is to be surplus stock. There is a lot of it that can not be used in the Naval Establishment; I mean can not be used for so long that it ought to be disposed of. And when we have whittled that all out and sold it, for which we trust we will get a good recovery, for the credit of the Treasury—it will not help the Navy except to get it out of its hands—we ought to retain \$150,000,000 of good stock.

ator HALE. And what you receive goes back to the Treasury?

miral POTTER. Yes, sir. The naval-supply account fund will be diminished steadily. As fast as we sell material to the public the \$255,000,000 will be diminished steadily. Of course, the market is pretty well saturated, and we are not selling so much as we did. Now we are selling at the rate for the whole establishment of about \$100,000 or \$700,000 a month, and perhaps half of that is from the naval-supply account.

ator HALE. Then you do not declare surplus any supplies that various bureaus may need?

miral POTTER. No, sir.

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Admiral POTTER. Yes, sir; this is what is left.

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Senator HALE. Then you do not declare surplus any supplies that various bureaus may need?

Admiral POTTER. No, sir.

Senator HALE. Once you declare it surplus they can not get it afterward?

Admiral POTTER. Oh, if they discover some need they could ask for it back again before it was sold, right down to the point of sale.

Senator NEWBERRY. You have no record of the surplus on hand and under control of other bureaus, have you?

Admiral POTTER. The other bureaus except ordnance don't directly control stores. You see the Bureau of Supplies and Accounts, the Supply Corps, stores all material for the Naval Establishment.

Senator POINDEXTER. Except ordnance?

Admiral POTTER. Yes, sir; and Medical Corps and Marine Corps stores.

Senator NEWBERRY. What about increase of the Navy?

Admiral POTTER. Increase of the Navy, we store material for that also.

Senator NEWBERRY. Have you an inventory of the stores for increase of the Navy and the character of them?

Admiral POTTER. We have it included in the general stores; example, engineering stores of about \$140,000,000. I gave you. It includes a lot of increase of the Navy.

Senator NEWBERRY. Then it is not in the naval supply account?

Admiral POTTER. Only a part of that material. The amount I gave you, \$140,412,000 engineering, is made up in part of naval supply account material and part of increase Navy material.

Senator NEWBERRY. That is what we were trying to find out. At the head of Engineering, how much he had paid for and on that he would not have to be charged against the appropriation?

Part of that is charged against this appropriation and another part of it is already on hand and ready to use?

Admiral POTTER. Yes, sir.

Senator NEWBERRY. That is what we wanted to find out. Instead of trying to do it too quickly, if you can put in the record, what part of the stores in your charge are the actual property of the bureaus, both Construction and Steam Engineering—Ordnance know is separate, and we know it is \$400,000,000 they have on hand that you have nothing to do with.

Admiral POTTER. I can do it roughly now. It is about \$140,000,000 in naval supply account that Engineering will have drawn, and \$90,000,000 that they will not have to pay for.

Senator NEWBERRY. In other words, they have about \$140,000,000 on hand that will not have to be appropriated for at this time.

Admiral POTTER. Yes; having been specifically charged against appropriation. Most of it is increase of the Navy that will not be issued from naval supply account, and sold to the public has been purchased direct.

Senator SWANSON. How did you get this naval supply account?

Admiral POTTER. The naval supply account?

Senator SWANSON. Yes.

Admiral POTTER. The material?

Senator SWANSON. I want the history of it. How did it come so fast?

Admiral POTTER. It dates back to about 1910.

Senator SWANSON. How much was appropriated to this account?

Admiral POTTER. They created a small fund which was, you will remember, the naval supply fund. It started

about \$300,000, and by successive laws they allowed us to build more.

Senator HALE. Successive appropriations?

Admiral POTTER. Successive appropriations or authorizations until 1910, when they allowed us to gather the value of all the material that was on hand in the naval establishment at the end of that fiscal year into one fund and so to establish the account with corresponding value of the amount on hand, with certain exceptions made by the then Secretary of the Navy.

Senator SWANSON. What year was that?

Admiral POTTER. 1910.

Senator HALE. How large was it?

Admiral POTTER. \$22,000,000. That was found so useful that it is indispensable for the conduct of an establishment. It enables to do precisely like a big civilian firm, accumulate in one pool all the general supplies on hand in the naval establishment and then charge from it, debiting the particular appropriation and crediting the account—

Senator SWANSON (interposing). This was only an amount to enable you to purchase supplies and continue to keep the account?

Admiral POTTER. Yes, sir. It varied according to the amounts appropriated for the naval establishment until March 1, 1921, when Congress fixed the fund which financed the account. We financed the accumulated material at the value it was on March 31, 1921.

Senator HALE. Which was what?

Admiral POTTER. At that time over \$300,000,000. We have written off war increment, which brought it down to \$255,000,000.

Senator SWANSON. That is entirely too large a fund.

Admiral POTTER. That is about \$100,000,000 too large.

Senator SWANSON. You ought to be able to get along with a fund much smaller than that.

Admiral POTTER. Yes, sir.

Senator HALE. What was it in 1916?

Senator SWANSON. \$72,000,000.

Admiral POTTER. Yes, sir.

Senator SWANSON. It was increased when the Navy was getting ready to go into war and to have the Navy ready for the war, and was increased so rapidly in 1916 in order to get ready for the war.

Admiral POTTER. Yes, sir.

Secretary DENBY. We began with this \$100,000,000 cut in conversation with Director of the Bureau of the Budget with a proposal to cut down the naval supply account by \$100,000,000. It could not be done at once. It will be done as the articles are sold and disposed of. It will not represent \$100,000,000 turned into the Treasury, but perhaps \$50,000,000 turned into the Treasury, and writing off the book account \$100,000,000.

Senator HALE. You have to declare that surplus first?

Admiral POTTER. Yes, sir.

Secretary DENBY. It is not wise now to declare the entire \$100,000,000 surplus, because we can not for some time to come reduce the present fund \$100,000,000; but as rapidly as it can be done and as the needs of the service require it that fund will be cut down, and I do not think it is much use discussing a further cut now because we are not getting anywhere near the sale of \$100,000,000.

Senator SWANSON. \$50,000,000 to have to advance to purchase supplies in time of peace is a large fund.

Secretary DENBY. We do not get it; it goes back in the Treasury.

Senator SWANSON. Yes; but you buy more supplies sometimes than you ought to. This was increased in 1916 because the fleet was being put on a war basis, and by being given that supply Admiral McGowan was able to have the Navy well supplied with everything. You do not need a fund in excess of \$50,000,000.

Secretary DENBY. But we can not reduce it, and it might as well be left in the meantime.

Senator SWANSON. I think you are right, but you ought to work toward reducing it a great deal. \$50,000,000 is a large fund for a supply fund for the Navy.

Admiral POTTER. I think not, Senator. I think we will need about \$150,000,000. Remember that what was one dollar prior to 1917 has to be represented by \$1.85 now. That is the latest statistics, within a few cents, at any rate. The commodity indices show it takes \$1.85 to buy what we used to buy for \$1. I guess everybody has felt that in his private living. That alone, you see, nearly doubles the amount right off the bat.

Experience shows that the different bureaus made purchases of the naval supply account in certain proportion, in proportion to whole amount of appropriations they had available to expend. Based on those proportions the indications were that they would have money between them to buy in the aggregate on the average about \$72,000,000 worth of material from naval supply account a year. Now, as we are aiming at present, the bureaus are to have about two years' supply of material on hand, and we just double the \$72,000,000, and make it \$150,000,000 for convenience.

Senator PHIPPS. What is the necessity for having a two years' supply on hand at any time? If we ever have a war there are very few articles that can not be produced within a year.

Admiral POTTER. Of course, from this stuff we have to supply ships. When the fleet goes out they have stores on hand—we have to keep them supplied in view of possible war, which is why we are here—for from three months to six months. There must be stores to put on the ships to fill out their supplies at any moment. Then, allowing for purchases through the different seasons when things are available, such as coal, iron, and various products, there are a few months required to make an accumulation, buying at the best market.

Senator PHIPPS. How do you know what the best market is? Would you buy steel to-day because it is cheap? Are you trying to guess 18 months ahead on the price of steel or coal or any commodity?

Admiral POTTER. I am not prepared to say about steel. I am not a

people who sit down and study that and do make those calculations. Senator HALE. Have you not a lot of contracts for oil on the present time at far above the market price for oil?

Admiral POTTER. We did have one, Senator, but that is a

Secretary DENBY. Mr. Chairman, if the committee is ready to resume the discussion of the naval supply account, the Navy will be further to present this afternoon. I do not mean, of course, to interrupt in the least the discussion; but if there are no more

asked of Admiral Potter I suggest we will put fuel over until tomorrow morning.

Senator PHIPPS. I have just one or two questions remaining.

Is this \$255,000,000 that you had on hand, none of that had declared surplus; you have disposed of \$190,000,000 of additional material at \$113,000,000 that was surplus, and you still had \$600,000 valued at market price of surplus remaining, as I follow your statement.

Admiral POTTER. Yes, sir; not yet sold; you are right, sir. We have that.

Senator PHIPPS. Assuming this bill becomes the law, some time within the next 60 days, how quickly will the Bureau of Steam Engineering and the other bureaus notify your bureau in detail what supplies they will be in the market for under the provision of this bill?

Admiral POTTER. Well, that I can not answer, sir.

Senator PHIPPS. Until you know that you are in no position to mine what articles that you have on hand are surplus, are you?

Admiral POTTER. They must tell us. We know from the standard catalogue here what is the amount we ought to keep on hand to the standard demands.

Senator PHIPPS. What I am trying to get at, and we are all working toward the same end, is to save the Government money in every possible way.

Admiral POTTER. Yes, sir.

Senator PHIPPS. And utilize the material we have in our possession at the present time?

Admiral POTTER. Precisely.

Senator PHIPPS. Whether it is a mere matter of bookkeeping or not, and to avoid buying anything in the market—

Admiral POTTER. Yes, sir; anything that we have on hand now.

Senator PHIPPS. Where we have the material on hand; and is it going to aid very materially and expedite your determination and enable you to tell what surplus you are going to have by having very prompt delivery of requisitions from the various departments, Construction and Repair, Steam Engineering, and others?

Admiral POTTER. Yes, sir; it is essential. The faster we move the better.

Secretary DENBY. It has been suggested we give an inventory of supplies on hand in the Bureau of Engineering and the Bureau of Construction and Repairs. We will get this, I assume, in a reasonable time. I would like to say to the committee those inventories will be submitted as closely as possible. From those, by deduction, in part at least, we can arrive at what Senator Phipps wants as to the needs of the bureaus.

Senator PHIPPS. That is what I want.

Secretary DENBY. But we can not do it now. We will do it as quickly as possible and put it in writing for the committee.

Admiral POTTER. A detailed inventory?

Secretary DENBY. No; that isn't necessary. We only need, as fully as you can, generally, what Engineering has to have and what Construction has to have, and whether it belongs to new construction or

Admiral POTTER. Yes, sir.

Senator PHIPPS. Where material requested has been put into use on a ship and the material is taken out of the ship and put back in the store, if it can be utilized by one of the bureaus, such as Engineer or Construction and Repairs, is that charged to them at the market price?

Admiral POTTER. No, sir; that is used material. If it has ever been charged to them, it remains in the same account.

Senator PHIPPS. The point I am getting at is this: If it is proper and correct and right practice to allow any bureau to use that used material at a reduced price—and that is a matter of bookkeeping—would it not be proper to allow that same bureau to use surplus material on the same basis as used material, because you will not be able to sell it in the market at to-day's market price? Your record in selling \$190,000,000 indicates about 60 per cent recovery?

Senator SWANSON. The disadvantage of doing that would be that Congress could not keep an estimate of what the Navy is doing. For instance, you take the Bureau of Ordnance and the Bureau of Engineering: We used to have everything in a lump sum appropriation could go to this reserve supply, you could give them \$9,000,000 and they could run up \$11,000,000 in material and so on, and \$12,000,000, too; but when we require them to pay it out of the appropriation they can not spend any more money than Congress allows them to.

Senator PHIPPS. That is one of the objections, I can see.

Senator SWANSON. I have been looking over this thing in a different way. As I understand, whenever they can get more or as much as one of these bureaus as they can from an outsider to buy it and give it to the bureau.

Senator PHIPPS. That is one of the things.

Senator SWANSON. They do that and pay it out of this appropriation. If your suggestion were followed, Engineering would have \$50,000,000 when we appropriated \$19,000,000, so we had to increase the appropriation to compel them to pay out of this appropriation for any material they got, otherwise you could not tell what you were appropriating.

Admiral POTTER. Where you build a battleship it would cost a certain amount, but really it might cost half as much or more.

Senator POINDEXTER. Do you buy all the supplies except what is mentioned?

Admiral POTTER. Yes, sir.

Senator POINDEXTER. You buy engines, machinery?

Admiral POTTER. Yes, sir; upon the request of the bureau concerned. Requisitions and specifications are prepared by the bureau concerned. Advertising is done by the Supply Corps, contracts are paid and settlements made, and the material is stored by us. All the technical requirements are done by the bureau concerned.

Senator POINDEXTER. You have a separate account for each bureau, have you?

Admiral POTTER. We have a separate financial account of appropriations for each bureau.

Senator POINDEXTER. You must have also a separate inventory for each bureau?

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

miral POTTER. No, sir; the bureau does not own property. The Naval Establishment owns it.

ator POINDEXTER. You have it in your possession?

miral POTTER. Yes, sir.

ator POINDEXTER. Under your bureau?

miral POTTER. Yes, sir.

ator POINDEXTER. And you are responsible for its care,

miral POTTER. Yes, sir.

ator POINDEXTER. How can you do that unless you have responsibility or account of it?

miral POTTER. Absolutely; but the law does not recognize property as belonging to the Bureau of Engineering or the Bureau of Instruction and Repair. It belongs to the Navy as a whole.

ator POINDEXTER. That is entirely immaterial. I am interested about the legal status of it.

miral POTTER. I understand now.

ator POINDEXTER. It makes no difference at all. I am trying to find out how you keep your accounts. You must keep an account of each bureau in order to be efficient.

miral POTTER. Not for each bureau; no, sir; because the Navy does not own the property. We carry an account that includes all the bureaus together. We carry the Naval Supply account; we also carry what we call the appropriations-purchase account, etc.

ator POINDEXTER. The Bureau of Engineering makes a requisition for certain supplies, certain material, and the Bureau of Naval Stores may likewise do so?

miral POTTER. Yes, sir.

ator POINDEXTER. Of course, it has to be taken out of the appropriation for those several bureaus?

miral POTTER. Yes, sir, eventually.

ator POINDEXTER. Do you mean to say it is all mingled together?

miral POTTER. Oh, no, sir.

ator POINDEXTER. That you keep no separate account?

miral POTTER. Oh, no, sir. There is an elaborate stock account showing what the material is, the bureau requisitioning it, the quantity, value, etc. Each item has a separate account.

It is absolutely identifiable both physically and financially.

ator POINDEXTER. You do not know at any time, then, what belongs to Engineering and what you have that belongs to Instruction?

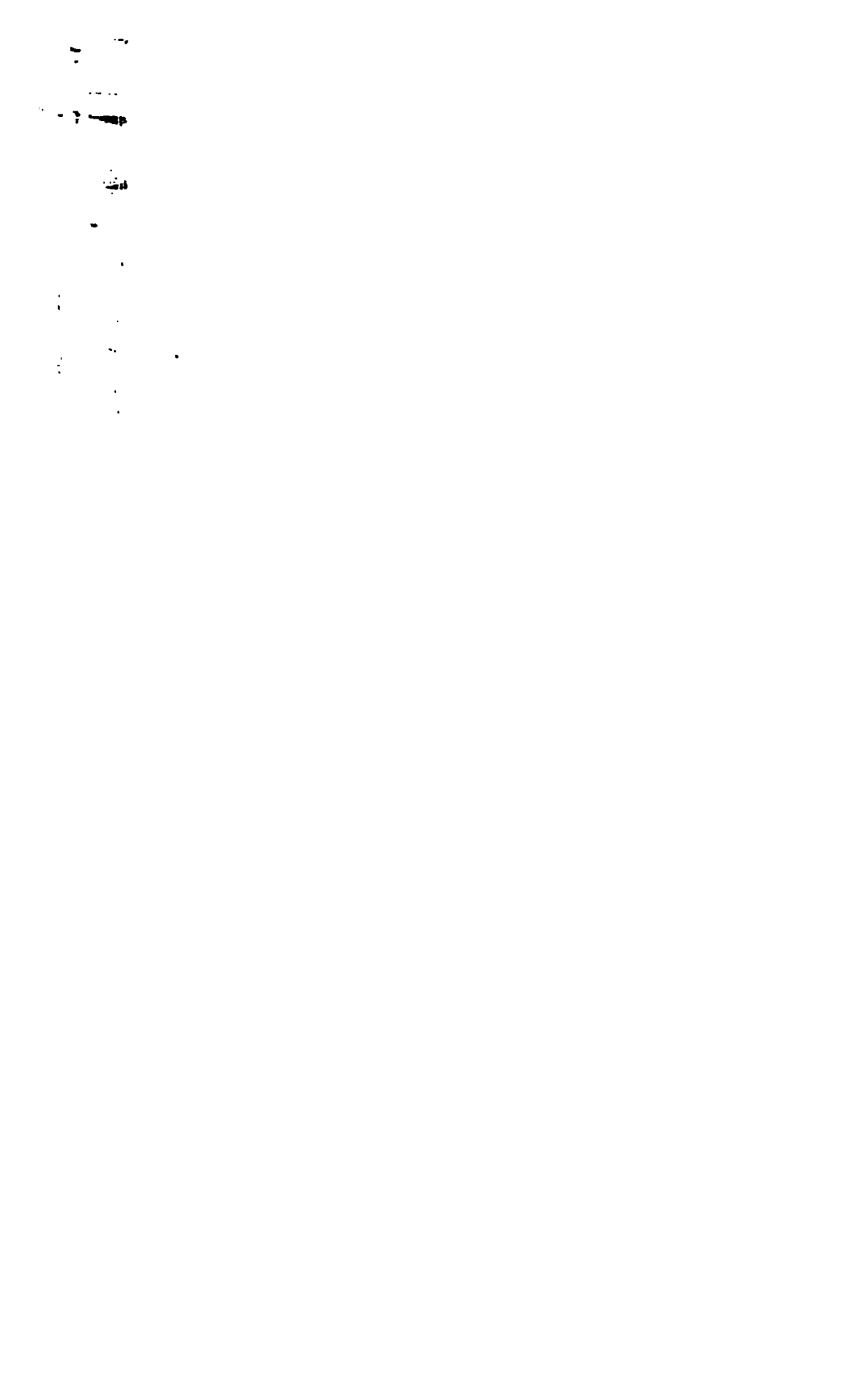
miral POTTER. Yes, approximately; because we have them divided into sixty-six classes, of which certain classes are applicable to certain bureaus.

ator NEWBERRY. Perhaps I could ask a question. I was brought up in my own mind this: Of the \$140,000,000 of Engineering appropriations, \$50,000,000 is in naval supply account fund?

miral POTTER. About.

ator NEWBERRY. \$90,000,000 has already been applied to the Naval Engineering?

miral POTTER. About \$90,000,000 has already been paid for engineering appropriations, including "Increase, Navy."



NAVY DEPARTMENT APPROPRIATION BILL, 1923.

THURSDAY, MAY 4, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The subcommittee met at 10.30 o'clock a. m.

Present: Senators Page (chairman), Poindexter, Hale, Phipps, Wherry, Swanson, and Gerry.

Present, also: Hon. Edwin Denby, Secretary of the Navy; Hon. Theodore Roosevelt, Assistant Secretary of the Navy; and others.

RESUMÉ OF STATEMENTS OF REAR ADMIRAL DAVID POTTER, UNITED STATES NAVY, PAYMASTER GENERAL; CAPT. E. LEUTZE, UNITED STATES NAVY, ASSISTANT TO THE PAYMASTER GENERAL; AND LIEUT. COMMANDER E. A. COBEY, UNITED STATES NAVY.

Mr. PAGE. Mr. Secretary, is it your wish that Admiral Potter take up the preliminary statement this morning?

Secretary DENBY. We should like to have Admiral Potter take up and finish the few matters he wishes to present to you.

Senator PAGE. Senator Hale would like to ask you some questions, Admiral, before you go on.

FUEL.

Senator HALE. Admiral, on page 37 of the bill, under "main-
e," appear the words "for fuel," on line 24. Can you explain

Admiral POTTER. Yes, sir. That fuel is for the Bureau of Sup-
ply and Accounts' share of the heat, light, and power for navy
where manufacturing is being done. Of course that has to be
provided.

or HALE. That has nothing, however, to do with the later
or "fuel and transportation"?

Admiral POTTER. No, sir; nothing whatever.

Senator HALE. How much expenditure is made for fuel for that
purpose?

Admiral POTTER. \$169,000 is our estimate for next year, based upon
experience.

Mr. PAGE. You may proceed, Admiral.

Admiral POTTER. I invite attention to page 39, line 24, the appropriation "fuel and transportation."

FURTHER STATEMENT OF HON. EDWIN DENBY, SECRETARY THE NAVY.

FUEL AND TRANSPORTATION.

Secretary DENBY. Mr. Chairman, in connection with "fuel and transportation," if the chairman will permit me, I should simply first, to lay the foundation for the questions that will be asked of our witnesses later.

The 1921 withdrawals from the Treasury for this purpose approximately \$33,000,000. Last year the committee provided \$500,000. As far back as November, 1921, we desired hearings the House committee in order to ask for an emergency appropriation so that we might avoid a deficiency. In February we were on the second deficiency bill, the appropriation having been \$17,500,000 and the calculations of the department having \$9,945,000 more than the \$17,500,000; so we asked a appropriation of \$9,000,000 more. The House committee gave us

We are trying to get through this year with the \$685, which we have to save out of unexpended balance or appropriations. We are going to get through this year on the \$685. It will be difficult, and we shall be able to do it only by a curtailment and exercise of very rigid economy. During the year we have placed ships on a short-fuel allowance; we have placed full-power steaming trials; we have forbidden ships to move for urgent necessity and for the bare conduct of gunnery exercises and we have placed many ships out of commission. So many ships have been able to operate only eight hours per day. It is impossible on account of shortage of fuel to hold the winter maneuvers at the canal this year. You will appreciate that fuel is what permits the fleet to go to sea. Maneuvers must be held, and in that they may be of the maximum benefit they can not be limited to economical speed. Gunnery exercises must be held in localities where the weather permits. Steaming exercises and power trials must be held in order to test the motive power of the ship and to train the engineer force in operating in high speeds in the use of forced draft. We ask this committee for just a little under \$20,000,000. Any reduction of this amount will be at the cost of fleet efficiency. We wanted \$22,000,000, but we try to get through with the smaller amount.

In order to find a basis upon which to fix our fuel consumption we went back to that period which is so often used by the committee the year 1916. For the year 1916 we computed the total miles traveled by each of the battleships and other craft of the fleet and used that as a basis for the computation in fuel this year. Using this method we are penalizing ourselves in this respect, for our vessels can not always cruise at the most economical speed. Our basis of computation is 16,200 miles per battleship, and a corresponding mileage for other vessels, at economical speeds only. In order to explain further, I will say that this flat mileage basis of 16,200 miles per battleship is based on the year 1916, when the fleet was smaller than it is now.

miles at economical speed produces a very moderate estimate. That is the number of miles steamed in 1916, without allowance for bad weather, casualties to machinery, or the use of higher speed than economical speed used in the calculation. A destroyer, for instance, uses approximately 11 times as much fuel at 34 knots as it does at 15 knots in traveling the same distance. For some of the exercises a higher speed than the economical speed is necessary for training. Oftentimes bad weather and casualties to machinery are encountered. This is why I say that the use of a flat mileage basis 16,200 miles is a very modest basis for calculation. This allows a battleship to be at sea under favorable conditions at only 12 knots and only 4.7 days per month as a maximum. If she operates at a higher speed or encounters bad weather, this time will be correspondingly reduced.

We asked the House committee to give us a little margin, a lump sum, to take care of unexpected emergencies which it is utterly impossible for us to anticipate. Last year we sent three battleships to sea. We sent a number of destroyers out after a derelict. We sent a cruiser to take back the President of Liberia. We sent a battleship to bring home the unknown dead. We have been called on continually for special work by the State Department or by resolution of Congress; and I think there should be both a careful computation as to the amount of mileage to be steamed according to a fixed preliminary operating plan for the ships of the Navy and then a lump sum in amount out of which the Navy may pay for steaming required for unexpected emergencies.

We have to make these trips. Of course, we are allowed under the law to create a deficiency in fuel, but nowadays we do not want to.

I think that in future it is not expected that deficiencies shall be created. So I should merely like, before turning over to the committee the witnesses who will testify in detail to all these facts, to emphasize the fact that we have tried to arrive at the amount that we must have for the year for fuel, and I want again to state that we ought to have something over that by way of a lump sum that can be expended for the unexpected emergencies which the department is continually facing.

Senator PAGE. How small a lump sum do you think you can get along with?

Secretary DENBY. We are asking for \$19,894,000 over all. The amount I wish to make is that there is in the present request to the committee no such lump sum. After you have gone into this and studied yourselves one way or the other as to whether the amount asked for is too much or too little, if you find that it is about right for the operating plan of the fleet to compute on the basis of battleships steaming 16,200 miles per annum at economical speeds, and so on, then I merely make the request that we be given something additional, whatever the committee thinks wise, to meet emergencies.

Senator HALE. I suppose if Congress decided to give you less than you asked for, you could operate the fleet in a little different way, and have them go 14,000 or 15,000 instead of 16,200 miles, could you not?

Secretary DENBY. Yes, sir; we can do that; but, as I explained, it could cause a loss of fleet efficiency. Also we never can tell when an

emergency will arise. We can make the operating plan. Once fixed, it is changeable; but we can not tell when it may be necessary to send another expedition down to Brazil, as is about to be the fact, as you know, at this time. We ought to know in the beginning what we can plan for.

Senator HALE. That is for emergencies?

Secretary DENBY. Yes, sir; we have no fund with which to meet them.

Senator HALE. But, I mean, you say that the battleships can go 16,200 miles in a year. That is simply an arbitrary number of miles, is it not?

Secretary DENBY. It is a figure based upon what we consider the least necessary to maintain ships and men in fit condition for war and to take care of joint maneuvers, target practice, and the other things without which a Navy soon becomes merely a collection of ships.

Senator HALE. But if the amount of the appropriation is cut down, you would cut down the distance that the battleships are posed to steam during a year?

Secretary DENBY. We would doubtless have to do that, and necessary exercises and maneuvers in order to maintain the ships for emergencies, or else go ahead and create a new policy; I am trying to show is that we have tried to put the figure as low as we possibly can consistently with a minimum operating plan of the Navy; and if we carry out that operating plan we have nothing left for emergency necessities as they arise.

**CONTINUATION OF STATEMENTS OF REAR ADMIRAL
POTTER, UNITED STATES NAVY, PAYMASTER GENERAL;
T. W. LEUTZE, SUPPLY CORPS, UNITED STATES NAVY;
AND LIEUTENANT TO THE PAYMASTER GENERAL;
AND LIEUTENANT J. E. A. COBEY, SUPPLY CORPS, UNITED STATES NAVY.**

FUEL AND TRANSPORTATION.

Admiral POTTER. Mr. Chairman, as the Secretary has been asking for an amendment changing the amount as shown in the House, which is \$16,000,000, to an amount of \$19,894,662, an increase of \$3,894,662.

Captain LEUTZE. Mr. Chairman, the Navy needs, according to our estimates, \$19,894,662 for fuel for the coming year. Our estimate as reported in the Budget was \$25,000,000. It takes care of 603 ships—291 vessels in active fleets, 129 with reduced complements, and 183 miscellaneous craft (ferries, etc.).

This estimate takes care of 321 ships of the active fleet, and craft, as follows: 21 sailing tugs, 42 harbor tugs, 5 shore tenders, 9 receiving ships, 4 ammunition lighters, 19 fuel-oil lighters, 23 ferryboats and launches, 4 water barges, 5 unclassified, U. S. S. *Illinois*, and 3 mine sweepers.

The amount that we asked for before the House Appropriations Committee was \$17,426,053.81. That amount was based on 304 ships together with 136 craft, as follows: 14 sailing tugs, 14 shore tenders, 9 receiving ships, 4 ammunition lighters, 11 freight lighters, 23 ferryboats and launches, 7 water barges,

miscellaneous craft, and was a hypothetical Navy which was submitted by the Department in accordance with a request of the chairman of the subcommittee.

Senator HALE. For a Navy of 67,000 men?

Captain LEUTZE. Sixty-seven thousand men. The estimate now submitted is gotten up on the same basis and using exactly the same basis for fuel consumption that were used in compiling the figures for the \$17,000,000, or the 67,000-man Navy. This is based on 86,000 ships and ships in accordance with the list given me by the Chief of Naval Operations.

Senator HALE. And adds 35 ships?

Captain LEUTZE. Yes, sir. The 475 ships include the ships of the fleet and the ships of the shore activities.

The statement which you have before you goes into detail, and shows just exactly for each type of ship the amount of coal or oil that is necessary; and then, further along, it shows each ship by name that is used in compiling this estimate.

Further on, you will find the estimate for the gasoline that is necessary.

This estimate calls for 533,119.86 tons of coal and 5,866,999.23 barrels of fuel oil, including the Diesel-engine oil for submarines. It calls for 4,074,462 gallons of gasoline. The other items of this appropriation might be called fixed charges, such as the maintenance of the fueling plants, the leased fuel-oil storage, water, ice, electric current, demurrage, tug hire, and a small amount for miscellaneous—namely, the latter, "miscellaneous," taking care of surveys and losses of fuel that may occur from time to time, and other expenses which we cannot foresee.

The basis of the estimate is stated on the first page of this statement—

All ships will cruise 16,200 miles.

I obtained from the Chief of Operations this figure, and I understand that he based it on the actual performances of the fleet in 1916, and also the first part of this year. It would indicate that that is the distance necessary for the ships to steam. There are other classes of ships, such as oilers, ammunition ships, colliers, cargo vessels, transports, mine sweepers, etc., that will cruise a varying number of miles. That is based on past performances in carrying fuel, freight, and Navy personnel to the various outlying possessions and also the ordinary duties of the particular classes of vessels.

This estimate also contemplates using a certain amount of the reserve fuel without replacement, the total amount being approximately 84,000 tons. That reserve fuel is in the Pacific, it being contemplated to use 63,000 tons from Pacific coast points and 21,000 tons from Asiatic points, or Cavite.

You will find on page 13 a list of the coal and from what points it will be obtained. On the next page, page 14, is the fuel oil, the distribution, and how we arrived at the average price. In arriving at that average price we based it upon what the Navy had used at various ports during the past year—that is, the allocation of ships throughout the world—and we expect that the ships will use about the same this coming year.

Senator POINDEXTER. How much oil do you expect to get from the oil reserves?

Captain LEUTZ. We do not expect to use any of the oil from the oil reserves, as I understand.

Senator POINDEXTER. What are you going to do with it?

Captain LEUTZ. That is a point which the Secretary, I would better answer.

FURTHER STATEMENT OF HON. EDWIN DENBY, SECRETARY THE NAVY.

NAVAL OIL RESERVES.

Secretary DENBY. Senator, you refer to the oil reserve from the Government oil lands?

Senator POINDEXTER. The naval oil reserve in California and one in Wyoming. My understanding is that certain of these are being sunk on those reserves.

Secretary DENBY. The two tracts in California as naval petroleum reserves, and the one in Wyoming, were opened by lease in order to get the oil before it got to private hands. The purpose of that is to lay up oil. Originally, these reserves were set apart so that they would constitute a war reserve. We do not want to get the war reserve of oil above ground, but we want it below ground; and we do not want to trench upon it very well, without a very good reason to presume.

Senator HALE. You say there were leases made?

Secretary DENBY. Yes, sir; leases were given to private parties.

Senator HALE. Then we do not get any reserve of oil paid for it?

Secretary DENBY. No; we get oil or money at our option. We get it in kind, in fuel oil, or we get cash.

Senator HALE. As a matter of fact, what are you getting—percentage of cash and what percentage of oil?

Secretary DENBY. We are getting it in oil and its value. The reserve containers are not yet completed. They are being made for the preservation of the oil. They are being paid for by a part of his contract price—in other words, as a part of the cost to the Government.

Senator POINDEXTER. I do not care to go now into the oil reserves, or the contracts for wells or leases made on them; but I was just asking as to the policy of the department with regard to such oil as is derived from these wells.

Secretary DENBY. The policy of the department is to keep the oil in the ground, which is regarded as sufficient for an emergency. When we shall have to meet the question, after we have used up much, when it arises, as to what to do with the reserve.

Senator POINDEXTER. You have not made any calculation as to how much oil you will receive from these wells during the next year?

Secretary DENBY. There has been a calculation, but I have not got it. The whole matter is being handled by the department of the Interior.

Senator POINDEXTER. It has a direct bearing on this item of appropriation.

Secretary DENBY. But we did not feel at liberty to use that in any event without specific authorization, as it was set aside as an oil reserve. The hope is that after we get sufficient oil to constitute a reserve we will then get authority from Congress to use the oil as we go along, and simply save the Government that much money.

Senator NEWBERRY. Mr. Secretary, do the proceeds of these leases, in oil or in cash, revert to the Treasury, or are they entirely left to the order of the Secretary of the Navy?

Secretary DENBY. The oil is absolutely subject to the Secretary of the Navy, and the cash, too—in the form of oil certificates.

Senator NEWBERRY. It is not turned into the Treasury at all? It is left to the order of the department, to use as you see fit?

Secretary DENBY. Yes; but we are not taking it in cash.

Senator HALE. I thought you said that some of it was being taken and some of it in oil.

Senator NEWBERRY. What are you going to get cash for and what are you going to store?

Secretary DENBY. We are storing it all at present.

Senator NEWBERRY. What is the amount?

Secretary DENBY. The amount I do not know.

Assistant Secretary ROOSEVELT. I can briefly answer Senator Poin- ter's question by saying that certainly the present there is no question of any surplus of oil which could be possibly used for the operations of the fleet; that all of the oil we will get, at least for the next two years, in our estimation, should go immediately into the reserve to build up the naval war reserve. In other words, it comes out of the ground and goes, as the Secretary says, into the tanks underground, and none of that can be used properly for current consumption.

Senator NEWBERRY. Is not that a thing that Congress will decide—whether it is going to be stored or used?

Secretary DENBY. Of course, Congress has complete power over it. We are proceeding now under authority of law.

Senator POINDEXTER. There is a very wide authority vested in the Secretary of the Navy as to the administration of these oil reserves and the proceeds from them.

Secretary DENBY. Yes.

Senator POINDEXTER. So it is quite pertinent to consider at least the policy of using or storing the oil?

Secretary DENBY. I meant to indicate that the policy would be, at the present, to store it absolutely; not to use it at all unless Congress directs otherwise until there has been a certain accumulation.

Senator POINDEXTER. What is the object in that?

Secretary DENBY. To have the oil ready in case of an emergency.

Senator POINDEXTER. You never have had a reserve supply of oil on the surface heretofore, have you?

Secretary DENBY. We have a certain reserve but not a very great one. This, of course, is entirely a matter of congressional law. We are acting now perfectly legally under the law as it exists.

Senator HALE. Mr. Secretary, if you receive any cash for the under the leases, that cash would have to be held to buy reserve with, would it not? It could not be used for other purposes?

Secretary DENBY. I do not think it could be applied to other purposes in the department; no.

Senator HALE. It would go to the oil-reserve fund, if it may be called so?

Secretary DENBY. Yes, sir. That is to the best of my recollection; but up to November, 1921, we have turned it into the T. It is regarded that any cash that comes out of these wells goes back into the Treasury, but under the law the discretion is so that in my opinion, at least, we need not do so unless we want to, but I can see exactly how the department could nullify the will of Congress under that action. It does not intend to.

(At this point a short recess was taken during which the subcommittee answered a quorum call.)

Secretary DENBY. Mr. Chairman, in continuation of the oil question, I think I understand what the committee wants—an estimate of the amount of oil which is supposedly in these reserves, and the disposition of it as to the points of deposit by the Navy. I can give you offhand those figures, but I shall have a memorandum here very quickly, as soon as we can get it, as to the estimated amount of oil in the different naval oil reserves. It will have to be a very rough estimate, of course. The estimated contents are: No. 1, 130,000,000 barrels; No. 2, 125,000,000 barrels; and No. 3, 30,000,000 barrels.

Senator NEWBERRY. Mr. Secretary—pardon me for interrupting you—as I understood the question, what the committee was particularly interested in just now was the probable production of oil under these leases for the fiscal year 1923, and the Navy proportion to that.

Secretary DENBY. That is a matter that will have to be determined by the committee, and I will submit it in that form.

Senator PAGE. Do you understand that these estimates are going to change the figures in our bill?

Secretary DENBY. No, sir; not in the slightest degree. The Comptroller has recently ruled that we can not use the money if it should be sold under lease. I do not think, myself, that the rule is correct.

Senator PAGE. This is a very interesting topic and, of course, it relates with our fuel proposition, but it is almost academic at this time.

Secretary DENBY. The purpose of that oil, until a certain fund is reached, is to have a reserve, called the war reserve, which is established by the study of the general board and officers in the department as to the amount of storage of fuel oil that should be had in case of a possible emergency; and the department will neither use the oil until after those reserves are set up, put in tanks, nor will the contractors build the tanks at points designated by the department along the Atlantic coast, on the Pacific coast, and in Hawaii.

Senator PAGE. And you will not reach that point of sufficient reserve in the present year?

Secretary DENBY. Undoubtedly not; nowhere near it during the present year.

Senator SWANSON. How long can oil be stored in tanks?

Secretary DENBY. Oh, practically indefinitely.

Senator SWANSON. With no evaporation or deterioration?

Secretary DENBY. No evaporation of an appreciable quantity. There are losses from leakage depending on the kind and condition of tanks.

Senator SWANSON. To what extent have leases been made on the reserve in California—I believe it is Number 1, the important one in California?

Secretary DENBY. There have been a number of leases. I can not give you those details. I did not think you would ask for them this morning, and I do not know how many leases have been made. They have been in the hands of the Secretary of the Interior to lease to the best advantage of the Navy, and the details of all of those matters I shall be glad to lay before you.

Of course, there is another question up before the Senate—an investigation as to the recent lease of the Wyoming reserve, called the Pot Dome. That lease has just been signed. Of course, nothing has been done under it, so that the only oil we are getting at all is from the California fields.

Senator HALE. Do you understand that when these reserves were established as naval reserves, the Navy was not supposed to use the oil for current purposes?

Secretary DENBY. Absolutely; although the bill was very broad, and gave the Secretary of the Navy complete power to dispose of it or use it as he chose; and it probably would have remained on the ground except for the fact that we found that there was drilling going on all around in the California region.

Senator HALE. Enough to run off all of the oil?

Secretary DENBY. Absolutely. The Government oil was being run off very rapidly, and we should have had nothing in time of emergency had we not endeavored to conserve it above the ground, so we can not conserve it below the ground.

Senator PAGE. I do not know of anything that has been more thoroughly discussed than that question during the last two or three years. It has been before us in all manner of shapes, and it has been finally fixed by law, you say, so that it will not affect this year's appropriation; so I do not know that it is necessary to discuss it at great length.

Secretary DENBY. I can only assure you that whatever power the Secretary of the Navy has will not be exercised in the use of this naval reserve oil without authority of Congress, except for storage purposes.

Senator PAGE. What about the money, if you happen to have any, which is received for the oil?

Secretary DENBY. Within a very few weeks the Comptroller of the Treasury has ruled that we can not use the money not in that particular instance, but in all other instances and that in the sale of Government articles, lands, and all that sort of thing, the proceeds shall go back into the Treasury, and he includes these naval oil proceeds under that same ruling.

Senator HALE. It would not go back into the Treasury, you say?

Secretary DENBY. It must go back into the Treasury; it can not be used by the Department.

Senator NEWBERRY. I thought you told me the other way.

Secretary DENBY. I told you that I thought it could under the law, but the comptroller has just ruled to the contrary.

Senator HALE. Now it must go back into the Treasury?

Secretary DENBY. Yes. If we get anything in cash it goes into the Treasury. We are still not satisfied, and propose to have the matter fully determined, not because we wish to use it, but because we wish to make sure what the authority of the department to use it may be; but I am giving you the assurance that the department does not intend to use and will not use either the cash or the oil that comes from that land. It will store the oil, and if there is any excess, by any possibility—which there will not be during the year 1923—then the matter will be re-referred to Congress and shall determine in some manner what to do with the money and with the excess oil. I should say the simplest possible thing would be, after the naval reserve storages were filled, to authorize the Navy to use a certain quantity of that oil, carefully restricting it so there would be no undue steaming or waste; but instead of giving cash it would be simply an authorization to use naval reserves after the war reserve is complete. It will take some time, a long time, to complete that reserve.

Senator NEWBERRY. Who will establish the war reserve?

Secretary DENBY. The Navy Department establishes it now.

Senator SWANSON. Has authority been given the Navy Department to do that?

Secretary DENBY. Authority is given in the act to do practically anything with the oil and with the proceeds of the oil.

Senator SWANSON. That is the act of 1920?

Secretary DENBY. I do not remember the date of the act, Senator.

Senator SWANSON. I know that when I was chairman we had these naval reserves turned over to the department. I have not seen the act of 1920. I was not very active at that time. Did the act in 1920 change the law at all in connection with the Navy Department having absolute control of the reserves?

Secretary DENBY. As I tell you, Senator, I can not remember the dates of the laws. I only remember the fact that the law gave full authority to the Navy Department to handle and dispose of these oil lands and of the oil. The oil was being drained off. When I came in I was continually being beset by oil-lease men, who wanted the privilege of drilling inside the naval reserves, because, as they stated, the oil was being drained off by outside drilling, and they wanted to offset that by inside drilling.

Senator GLASS. That was in the California field?

Secretary DENBY. That was in the California field. That was not in the Wyoming field until very recently.

Senator POINDEXTER. I do not want to go very far into that subject, but I should like to ask you, Mr. Secretary, if you remember, how long it was from the time the wells were sunk on adjacent private property, through which the oil was being drained from the naval oil reserves, until measures were taken by the Navy Department to protect the naval oil reserves by drilling wells on them?

Secretary DENBY. I can not tell you, Senator.

Senator POINDEXTER. Something like a year; was it not?

Secretary DENBY. It was a long time, and as soon as I discovered it I went to the Secretary of the Interior.

Senator POINDEXTER. I notice in the report from you and the Secretary of the Interior that it is stated that millions of barrels of oil drawn from these reserves before measures were taken to protect lives.

Secretary DENBY. That is a matter that the Department of the Interior would know about very much better than we would; but as it was discovered that such was the situation I asked the Secretary of the Interior if he would undertake to handle it for the Navy, and we went to the President and secured the Executive Order transferring the naval oil reserves to the Secretary of the Interior to administer in trust for the Navy, the Secretary of the Navy, a party to the policies, but not to the actual administrative. For instance, I signed the Teapot Dome lease, agreeing that it had been opened, because we discovered that that also was being

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Senator HALE. I want to ask one more question. Will you tell me, Secretary, why in making these leases it would not have been possible to provide that a certain amount of the oil should go for other purposes, as you are doing now, and that instead of receiving for the balance you should receive oil which would be used for current purposes of the fleet?

Secretary DENBY. There was no particular reason for doing that. It will be a long time before there will be any cash derivable under the present system. The tanks are not yet built. The tanks are to be paid out of the royalty to be paid to the Government. They are a part of the contract.

Senator HALE. And you would not have gotten any oil for the use of the fleet during the current year?

Secretary DENBY. From these wells?

Senator HALE. From these wells, in excess of what you were using for storage?

Secretary DENBY. We could have gotten some. We could have exchanged oil, because I know—I am speaking from memory—that matter that I have not considered for a long time—that we got the certificates which to the best of my recollection are still kept, disposed of yet, unless they have been turned into the Treasury. I will ask Admiral Potter. He probably knows.

Admiral POTTER. That has only been used for storage.

Secretary DENBY. I know, but you got some oil credits, and that money has not been used for the Navy?

Admiral POTTER. No.

Secretary DENBY. The answer is that we did get some oil credits, but we have not used them.

Senator HALE. But that money you could use, and if you do not it will be turned back into the Treasury and you will lose it.

Secretary DENBY. We may.

Senator HALE. Whereas if you had taken the oil for the current use of the fleet the department would have been that much ahead, would it not?

Secretary DENBY. It would have been very little. This, as I say, is distributed, and the oil credits are being held.

Senator NEWBERRY. Where and how; in a certificate of deposit?

Secretary DENBY. In what is called oil certificates.

Senator HALE. Mr. Secretary, if you receive any cash for oil under the leases, that cash would have to be held to buy reserve with, would it not? It could not be used for other purposes?

Secretary DENBY. I do not think it could be applied to other purposes in the department; no.

Senator HALE. It would go to the oil-reserve fund, if it may be called so?

Secretary DENBY. Yes, sir. That is to the best of my knowledge; but up to November, 1921, we have turned it into the Treasury. It is regarded that any cash that comes out of these reserves goes back into the Treasury, but under the law the discretion is left to that in my opinion, at least, we need not do so unless we want to, but I can see exactly how the department could nullify the action of Congress under that action. It does not intend to.

(At this point a short recess was taken during which the subcommittee answered a quorum call.)

Secretary DENBY. Mr. Chairman, in continuation of my statement, I think I understand what the committee wants to know of the amount of oil which is supposedly in these reserves and the disposition of it as to the points of deposit by the Navy. I cannot give you offhand those figures, but I shall have them ready for you here very quickly, as soon as we can get it, as to the amount of oil in the different naval oil reserves. It is only a very rough estimate, of course. The estimated amounts are: No. 1, 130,000,000 barrels; No. 2, 125,000,000 barrels; and No. 3, 60,000,000 barrels.

Senator NEWBERRY. Mr. Secretary—pardon me for interrupting you—as I understood the question, what the committee is particularly interested in just now was the probable production of these leases for the fiscal year 1923, and the Navy's estimate of that.

Secretary DENBY. That is a matter that will be taken up later, and I will submit it in that form.

Senator PAGE. Do you understand that these estimates are a way going to change the figures in our bill?

Secretary DENBY. No, sir; not in the slightest degree. The controller has recently ruled that we can not use the money if the oil should be sold under lease. I do not think, myself, that that is correct.

Senator PAGE. This is a very interesting topic and, of course, it relates with our fuel proposition, but it is almost a waste of time.

Secretary DENBY. The purpose of that oil, until a reserve is reached, is to have a reserve, called the war reserve, established by the study of the general board and officers in the department as to the amount of storage of fuel oil that should be provided for a possible emergency; and the department will not use the oil until after those reserves are set up. Then the contractors build the tanks at points designated by the department along the Atlantic coast, on the Pacific coast, and in the Gulf of Mexico.

Senator PAGE. And you will not reach that point during the present year?

Secretary DENBY. Undoubtedly not; nowhere near it.

Senator SWANSON. How long can oil be stored in tanks?

Secretary DENBY. Oh, practically indefinitely.

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

or SWANSON. With no evaporation or deterioration?

ary DENBY. No evaporation of an appreciable quantity of losses from leakage depending on the kind and conditions.

or SWANSON. To what extent have leases been made in California—I believe it is Number 1, the important ones?

ary DENBY. There have been a number of leases. I cannot go into those details. I did not think you would ask for the details, and I do not know how many leases have been made. They are in the hands of the Secretary of the Interior to his advantage of the Navy, and the details of all of those leases will all be glad to lay before you.

or SWANSON. There is another question up before the Senate—concerning as to the recent lease of the Wyoming reserve, the Naval Reserve. That lease has just been signed. Of course, it has been done under it, so that the only oil we are getting at is in the California fields.

or HALE. Do you understand that when these reserves are used as naval reserves, the Navy was not supposed to use them for other purposes?

ary DENBY. Absolutely; although the bill was very broad and gave the Secretary of the Navy complete power to use it or use it as he chose; and it probably would have remained around except for the fact that we found that there was oil all around in the California region.

or HALE. Enough to run off all of the oil?

ary DENBY. Absolutely. The Government oil was being used off very rapidly, and we should have had nothing if the Navy had we not endeavored to conserve it above the ground. We can not conserve it below the ground.

or PAGE. I do not know of anything that has been more fully discussed than that question during the last two or three years. It has been before us in all manner of shapes, and it has been fixed by law, you say, so that it will not affect this appropriation; so I do not know that it is necessary to discuss it at length.

ary DENBY. I can only assure you that whatever power of the Navy has will not be exercised in the use of reserve oil without authority of Congress, except for small quantities.

or PAGE. What about the money, if you happen to have received for the oil?

ary DENBY. Within a very few weeks the Comptroller of the Treasury has ruled that we can not use the money not for that instance, but in all other instances and that in the present articles, lands, and all that sort of thing, the proceeds go back into the Treasury, and he includes these naval reserves under that same ruling.

or HALE. It would not go back into the Treasury, you say?

ary DENBY. It must go back into the Treasury; it cannot be kept by the Department.

or NEWBERRY. I thought you told me the other way.

Senator POINDEXTER. How many of these 18 battleships that we are to obtain are coal burning?

Captain LEUTZE. Six, I think.

Senator POINDEXTER. Have you a list of those?

Captain LEUTZE. Yes; it is shown on page 4 of this statement, as to each ship; whether it is coal burning or whether it burns fuel oil; in the estimate in that column. Each ship is shown, and it is stated whether it is a coal burner, or how it is estimated.

COST OF COAL PER TON.

Senator POINDEXTER. How much did you pay for coal last year?

Captain LEUTZE. The commandeered price was \$4.40, and the price of coal that was not commandeered was \$6.36.

Senator POINDEXTER. Does that include transportation or is it the price at the mine?

Commander COBEY. Up to the 1st of April all of our coal was obtained by commandeering orders, on an average base price about \$4.42 a gross ton at the mine, in West Virginia; and in Pennsylvania, at an average base price of \$4.25, which made an average price of about \$4.57. Beginning with the 1st of April last year —

Senator NEWEERRY. 1921.

Commander COBEY (continuing). The Navy discontinued commandeering for the rest of the fiscal year. The Navy purchased coal on the open market and base price on most of the coal was \$4.40 a ton, or \$3.36 a gross ton, f. o. b. mine, West Virginia.

The market at that time had dropped a great deal. For Pennsylvania coal—most of our coal was bought from West Virginia—our price at the mines was about \$4.05 per gross ton.

Senator HALE. These figures do not correspond with the figures in the House hearings at all. Mr. Kelley asked: "What do you pay for coal at the mine?"

The answer was: "\$2.54, West Virginia; and \$3.57, Pennsylvania."

Commander COBEY. That is the present fiscal year. I understand that the last fiscal year was meant. Our price for the present year is \$2.24. Coal has dropped a dollar a net ton at the mine in West Virginia.

Senator HALE. Your estimates are on the present practice, are they?

Commander COBEY. Yes, sir.

Senator POINDEXTER. How do you transport this Pennsylvania and West Virginia coal to the Pacific coast?

Commander COBEY. It is transported in colliers, as far as colliers are available. About four-fifths of it is transported in colliers. We have to charter vessels for most of the coal; usually we are able to get bottoms that are going light to the west coast, and our prices vary from about \$4 to about \$7 per gross ton for transportation to the west coast. It depends entirely upon the vessels that are available when we go into the open market.

Senator POINDEXTER. What are the arrangements for bunkering coal on the Pacific coast?

Commander COBEY. We place the coal in storage at our large coaling stations at Puget Sound, at San Francisco, and at San Diego.

by barges, except where colliers bring coal from the Atlantic and then we deliver direct from the colliers to vessels.

COST OF FUEL OIL.

or POINDEXTER. Now, as to the prices for oil, I notice in this ships on page 8 of this statement; as I understand it, there battleships, the older ones that are coal burning, and there are of them oil burning; and on page 14 you have a statement of aid for oil. How did you arrive at those prices?

lander COBEY. The prices on the Atlantic coast are the prices ng paid under the lowest contract which we have. We have tracts on the Atlantic coast. On the west coast they are the eing paid in all of the contracts, because the contracts there approximately the same.

or POINDEXTER. How are these contracts made?

lander COBEY. They are made every six months or every three

or POINDEXTER. Do you call for competitive bids?

lander COBEY. Always.

or POINDEXTER. So that you get competitive bids on this oil?

lander COBEY. Yes, sir; there are five companies on the west at submit bids.

or POINDEXTER. Do you get it below the ordinary market ulying oil in the large quantities that the Navy Department in?

lander COBEY. We never pay above the market price and ies we get a substantial reduction.

or POINDEXTER. Ordinarily in transactions of this kind for chase of great quantities such as you purchase, of oil, there e a considerable reduction from the market price.

lander COBEY. Well, we get some reduction from the current price, sometimes, but not always. In coal we get reductions ie current market price much more frequently than we do on l is generally firmly fixed, and we do not often get a quotation he market price, although we were below the market price in t contract on the west coast—in fact below any contract we f.

AMOUNT OF FUEL OIL PURCHASED ON THE WEST COAST.

or POINDEXTER. How much oil did you buy on the east coast present fiscal year, and how much on the west coast?

lander COBEY. For the present fiscal year?

or POINDEXTER. Yes.

lander COBEY. We have not those figures, of course, complete, we are in the midst of that year, and the contracts on the ast do not call for a fixed quantity because of the constant on in demand. It has been impossible since last fall to guar- o take a fixed quantity, but we were able to get the market ith an indefinite clause in the proposals. The actual amount under contract on the west coast since the 1st of last July is ,500,000 barrels.

or POINDEXTER. You have made contracts already covering ire fiscal year, have you not?

Commander COBEY. Yes.

Senator POINDEXTER. 1922?

Commander COBEY. Yes, sir; we are just going in the market for the next six months.

Senator POINDEXTER. How many barrels on the west coast?

Commander COBEY. About 3,500,000 barrels.

Senator POINDEXTER. And on the east coast?

Commander COBEY. For this past year—

Senator POINDEXTER. Well, for the present year.

Commander COBEY. For the present year our contracts actually cover about 4,800,000 barrels. Of that quantity we have 700,000 barrels yet undelivered. A considerable quantity has gone into storage—

Senator POINDEXTER. Four million eight hundred thousandrels?

Commander COBEY. Approximately that quantity is covered by our contracts on the east coast for this fiscal year.

Senator POINDEXTER. And 3,000,000 barrels on the

Commander COBEY. Three million five hundred thou

Senator POINDEXTER. Three million five hundred thourels?

Commander COBEY. But 700,000 barrels of the 4,800,000 east coast have not yet been taken, so that 4,100,000 barrels drawn on this coast, and of that a considerable part has storage.

Senator POINDEXTER. What portion of the quantity you buy is consumed wholly by the Pacific Fleet?

Commander COBEY. Now, the Pacific Fleet, for the first consuming more oil than the Atlantic Fleet.

Senator POINDEXTER. It is consuming very much more,

Commander COBEY. It very soon will, Senator. Of course we have had a large number of destroyers on this coast and being put out of commission or else are under orders to retire, and they consume very little oil.

Senator POINDEXTER. Give us the figures, approximately, if you can, of the percentages used on each coast.

Commander COBEY. Yes; I have them. We expect for next year to use on the Atlantic coast, including the European station, 2,555,000 barrels, roughly, and on the Pacific coast 3,312,000 barrels.

Senator POINDEXTER. That is, for 1923?

Commander COBEY. For 1923.

Senator POINDEXTER. Two million five hundred and fifty-five thousand barrels on the Atlantic coast?

Commander COBEY. Including the European station; and 3,312,000 on the west coast, including the Asiatic station.

Senator POINDEXTER. Now give us the figures for 1922.

Commander COBEY. Not including oil placed in storage used approximately 3,500,000 on the Atlantic coast and used approximately 3,100,000 on the west coast.

Senator POINDEXTER. And the use on the west coast so that for the fiscal year 1922, approximately, you used more oil on the Pacific coast as on the Atlantic coast, and much more than that?

Commander COBEY. Yes, sir.

COMPARISON OF PRICES OF OIL ON EAST AND WEST COASTS.

Senator POINDEXTER. I notice the prices of oil you give, of which say you bought 4,800,000 on the Atlantic coast at prices ranging from \$2.25 up to \$2.80, whereas the oil on the Pacific coast has been bought from \$1.50 to \$2.15—principally \$1.50.

In view of those figures, why did you buy a great quantity of oil on the Atlantic coast at a higher price, when equally as much was obtained on the Pacific coast, and it could have been obtained there at a much lower price?

Commander COBEY. The transportation from coast to coast ordinarily more than offsets the difference in price. In this particular case, however, there was a large contract which we already had on the Pacific coast which had to be completed first.

Senator POINDEXTER. When was that contract made?

Commander COBEY. That contract was made in May, 1920. It is the New England Oil Corporation contract.

Senator POINDEXTER. Was that contract covering a number of barrels?

Commander COBEY. No, sir; it covered a fixed amount of 3,000,000 barrels.

Senator POINDEXTER. I am not speaking of the amount, but of the

Commander COBEY. The time was fixed on the amount. It provided that the contract should expire when the 3,000,000 barrels of oil should have been taken from the contractor; and the provision was made that the Navy would at least take 180,000 barrels a month and 250,000 barrels if possible. Owing to the fact that it was considered important to clear this contract up as soon as possible, we were able to get a great deal more than that, and averaged about 300,000 barrels a month, placing some of that in storage.

Senator POINDEXTER. That was a very expensive way of clearing up. Do you mean to say that the oil you procured for the fiscal year 1922 was governed by a contract that was made in 1920?

Commander COBEY. Yes, sir; but there were peculiar circumstances surrounding that contract. It was a very unusual situation.

Senator POINDEXTER. State what those circumstances are. It does not seem to me like it is very peculiar and unusual to speculate in oil to that extent, resulting in an enormous increase in cost to the Government, apparently.

Assistant Secretary ROOSEVELT. If you will allow me to say a word, my proposition is this: In the spring of 1920—that was before the administration took over—it was very difficult to get fuel oil. The people in control of the department at that time decided in order to insure the department's getting fuel oil, they would make a very special type of contract, which they did, and that contract, roughly, took payment in kind, and practically advanced Government money to the New England Oil Corporation. There were special difficulties with the New England Oil Corporation, whose main plant had not been constructed at the time that the contract was made. In March, last year, when we took over the Navy Department, we were confronted with a situation whereby it looked certain that the company would fail—in which case we would lose a very

large sum of money, running into the millions—or that we would have to make certain other arrangements. We realized that the cheapest thing for the Government to do was to try to prevent the company's failing, and to get our oil out as fast as possible. Therefore, we reorganized the original contract on a new basis, not changing the price but changing the securities that the Government would hold for the execution of the contract, and after that again modified the contract with the company so as to secure deliveries as fast as possible.

The reason that there was no attempt made by the Government to void the contract on the basis of nondelivery was that the department had advanced to the company certain sums of Government money and we were getting our repayment in oil—not in kind, but in cash. That is what kept that contract alive, and we have just within the last two months finally seen daylight on that contract. It was completed on the 18th of March, 1922.

Senator POINDEXTER. And that is the contract under which oil of the quantities stated here was delivered at the various Atlantic and Gulf ports?

Assistant Secretary ROOSEVELT. That is the biggest contract.

Senator POINDEXTER (continuing). At the prices stated here, ranging from a minimum of \$2.25 to a maximum of \$2.80?

Assistant Secretary ROOSEVELT. Yes, sir. There were other contracts which came into it. As I recall it, there were two contracts made in the autumn of 1920—the two biggest contracts, running six or eight months.

Commander COBEY. They were set aside in order that we might take oil from the New England Oil Corporation, so that we might get our money back.

Assistant Secretary ROOSEVELT. We took everything we could from the New England Oil Corporation in order to get our money back out of that company.

Captain LEUTZE. These figures on page 14 are the estimated quantities we are going to use next year, and also the estimated prices.

Senator POINDEXTER. Where are the prices for 1922?

Captain LEUTZE. Those are not here. This is merely the estimate for 1923.

Commander COBEY. I can give you those prices.

Senator POINDEXTER. These prices it is stated are of the date April, 1922, and I presume they are the prices of oil at that date.

Commander COBEY. That is the estimate made on that date.

Senator POINDEXTER. Whether that is true or not, does this report to give the prices of fuel oil in April, 1922?

Commander COBEY. No; not the market price. The market price now is considerably below that on this coast. That price is what estimate we will probably have to pay for oil during this coming fiscal year.

Senator POINDEXTER. What does this date, April 25, 1922, at the head of this statement signify?

Commander COBEY. Nothing, except that that was the date at which the statement was prepared.

Senator POINDEXTER. And the prices are merely guesswork?

Commander COBEY. They are the prices for the next year, sir.

Senator POINDEXTER. What do you base your prices on?

nder COBEY. The lowest contract under which we are now getting fuel oil on this coast. The New England Oil Corporation was at a price of \$3.05 per barrel at the refinery at Fall River. This price is \$2.25 per barrel at the refinery at Portland which increases for points up the coast because of the transportation charges. We use that figure because the present oil market is so low, and it is impossible to forecast the market on the Atlantic coast. The experience of our purchases over a year of years shows—

PRESENT MARKET PRICES OF OIL ON EAST COAST.

Mr POINDEXTER. Have you a statement of the present oil prices?

Mr COBEY. Yes, sir.

Mr POINDEXTER. What are they at these various ports? Take a moment on page 14 of your statement, in which you have a list of ports listed giving the prices of oil there, which you now merely a guessed price or estimated price that you think it is for 1923. What is it actually, now, at those places?

Mr COBEY. Actually, now—

Mr POINDEXTER. Give the exact date of which you are quoting the present price.

Mr COBEY. May 1, 1922. The market price at New York—not the market price at all these points of that date—is \$1.80

The market price at Norfolk is \$1.75 a barrel. The market price at Gulf ports—those are the three principal points of consumption—is \$1.65 a barrel.

Mr POINDEXTER. Those are all that you have available there?

Mr COBEY. Yes.

Mr POINDEXTER. Those three?

Mr COBEY. Yes, sir.

Mr POINDEXTER. You have estimated the prices which you will have now under your statement here, for oil in 1923, at \$2.60 a barrel at New York, whereas on May 1 it was selling there at \$1.80 a barrel.

Mr COBEY. Yes, sir.

Mr POINDEXTER. On what do you base that enormous increase?

Mr COBEY. It is based on the very uncertain state of fuel prices on the Atlantic coast.

Mr POINDEXTER. The price may go down, may it not?

Mr COBEY. It may, but it is at the lowest point now that it has been for a long time, and there is every indication that it will not rise. About this time last year oil started to rise and a dollar a barrel before the 1st of the following January.

Mr POINDEXTER. Of course, if the market should have an advance, that would be a very good reason for you to ask for a de-appropriation.

Mr COBEY. At Norfolk you have estimated that you will have to pay \$2.60 a barrel for oil in 1923, whereas it is now selling for \$1.75 a barrel.

Mr POINDEXTER. At the Gulf ports you estimate that you will have to pay \$2.25 a barrel, whereas it is now selling there at \$1.65 a barrel.

Commander COBEY. There is every probability, Senator, that that will actually happen.

Senator POINDEXTER. Is this figure that you are asking for fuel in the bill, so far as oil is concerned, based upon these estimates that we have just been mentioning for 1923?

Commander COBEY. Yes, sir; for the east coast.

For the west coast we have estimated on the present market prices because the fluctuation there over a long number of years has been very slight.

PRESENT MARKET PRICE OF OIL ON WEST COAST.

Senator POINDEXTER. What are the present market prices on the west coast as of May 1?

Commander COBEY. The present prices on the west coast are, at San Francisco \$1.50 a barrel; at San Pedro it is the same; at Pearl Harbor, \$2.15; and at Puget Sound the price is \$1.93, which is 5 cents advance over the estimated price.

Senator POINDEXTER. It is \$2.15 a barrel where?

Commander COBEY. \$2.15 at Pearl Harbor.

Senator POINDEXTER. And what at Seattle?

Commander COBEY. It is \$1.93 a barrel at Seattle.

Senator POINDEXTER. Is that \$1.93 or \$1.83?

Commander COBEY. \$1.93. At San Diego, the price is now \$1.90 a barrel.

Senator POINDEXTER. Now, that is very interesting. On the Atlantic coast you estimate, taking Norfolk, for instance, there will be an increase from \$1.75 a barrel to \$2.65 a barrel; and at San Francisco on the west coast, you estimate that during the same period of time there is going to be a decrease from \$1.90 a barrel down to \$1.00. How do you reconcile those statements?

Commander COBEY. That is a temporary fluctuation of only 15 cents at San Diego. \$1.90 is the lowest quotation we have.

Senator POINDEXTER. I know; but that is the same basis you estimated prices in New York.

Commander COBEY. Yes; but the base prices at the oil centers, San Diego and San Pedro, are the present market prices, and, going by the experiences of the past years, it seems probable that the market price will not rise on the west coast during the next year.

Senator POINDEXTER. What is your reason for supposing that the market is going to be a stationary market in oil on the west coast? Is it a highly inflated market for oil on the east coast?

Commander COBEY. Because the California fields and other fields that are now producing oil have been producing at a fairly steady rate for a number of years, and there is no reason from the oil trade that there will be a change. There is a deal of oil exported from the west coast, except to the Far East, and now the Sumatra and Borneo fields are producing a comparatively liberal quantity of oil; whereas on the Texas coast the supply fluctuates violently. Just recently the great Texas fields have partially gone to salt water, and the Mexican fields, which we get 60 per cent of our fuel oil, are in a very certain state. We saw the price rise last year, and it is rising almost every year.

This chart [indicating photostat of blue print] will show you just **hat the market** has done in the last few years on the east coast. On **ie west coast** it has been stable during that time.

Senator POINDEXTER. Have you made contracts for oil for 1923?

Commander COBEY. No, sir.

Senator POINDEXTER. You are not tied up or limited in any way **is to that?**

Commander COBEY. No, sir.

EXISTING CONTRACTS FOR OIL.

Senator HALE. Have you not any old contracts that are still holding?

Commander COBEY. No; the two that are on this coast are nearly exhausted, and they probably will be exhausted before the 1st of next January.

Senator HALE. Before the 1st of July?

Commander COBEY. No, sir; before the 1st of January, on this coast. On the other coast they will expire the 1st of June.

In arriving at these figures, we simply took our present contract prices on both coasts—using the lower contract on this coast, because the contracts are old contracts. We did not use the present market prices, because, from our observation of the market over a long number of years, we are led to believe, and we are so advised by all the oil trade, that there is every likelihood of a rise. In fact, the Geological Survey reports indicate that. Of course, we could estimate for oil on this coast at the present market price, but there is every indication that that would cause us to incur a deficiency. We expect now a 25 cent per barrel rise within the next week.

Senator POINDEXTER. In arriving at your estimate of the amount of money that you will need for the purchase of oil in 1923, how much did you estimate that you would buy on the Pacific coast?

Commander COBEY. The quantity shown on page 14 of the statement—3,312,120 barrels.

Senator POINDEXTER. And 2,555,000 barrels on the Atlantic coast?

Commander COBEY. Yes, sir; 2,554,875 barrels.

Senator POINDEXTER. Now, turn to coal. Where is your statement on coal?

Commander COBEY. On the page before that; on page 13.

ESTIMATED COST OF COAL.

Senator POINDEXTER. How did you arrive at your estimate of the cost of coal in 1923?

Commander COBEY. That was arrived at from the several lots shown on page 13. We expect, on account of the reduction in the number of coal-burning ships in the Pacific, to draw on our reserve storage in the Pacific to the extent of 62,965 tons, which is carried in the naval supply account fund, and for which we must pay out of the appropriation, "Fuel and transportation," just the same as if we bought the coal in the open market at its present invoice price of \$8 per ton. The reason that this price (\$8 per ton) is so low is that a considerable part of this coal was carried out in colliers, without any transportation charges. Do you wish me to go right on down through these?

Senator POINDEXTER. Yes.

Commander COBEY. The next point is Cavite, Philippine Islands. We expect to issue 21,285 tons from the stocks there, which are now carried at \$10.45 a ton.

Senator POINDEXTER. That is carried in the naval supply account fund?

Commander COBEY. Yes, sir.

SUPPLY OF COAL STORED ON WEST COAST AND AT CAVITE, PHILIPPINE ISLANDS.

Senator PHIPPS. Just at that point, can you tell us how much that will leave us in storage at each of those points?

Commander COBEY. Yes, sir. On the west coast, including Pearl Harbor, it would leave us 215,000 tons in storage; and at Cavite we will have, of Navy standard coal, approximately 7,000 tons for use in ships. The rest will be Chinese and Japanese coal, which is used in the power plants ashore.

Senator POINDEXTER. How much did you say you would have in the first item up there?

Senator PHIPPS. 215,000 tons, he said.

Commander COBEY. At Cavite, 7,000 tons.

Senator POINDEXTER. I understand that you are going to 21,000 tons of coal from Cavite?

Captain LEUTZE. Oh, no; that is to be used out there in Cavite.

Senator POINDEXTER. The second item, I referred to.

Captain LEUTZE. That is coal that is out there now.

Senator POINDEXTER. That 21,000 tons that you are taking from the store there now, that will be used in that vicinity station?

Captain LEUTZE. At that station. Then, in addition, we will take 21,000 tons additional out from Hampton Roads. That is the next to the bottom item.

Senator POINDEXTER. \$4,717,000. Now, how do you arrive at that figure, based upon the price of coal per ton? Where are you going to get this coal?

Commander COBEY. Practically all of it comes from Hampton Roads. There is some of it that comes from Pennsylvania, but it is delivered at New York and Philadelphia, for use at Hampton Roads.

PRESENT MARKET PRICE OF COAL AT HAMPTON ROADS.

Senator POINDEXTER. Take Hampton Roads; practically all of it comes from Hampton Roads. What is the price of coal at Hampton Roads May 1?

Commander COBEY. \$5.29 a ton.

Senator POINDEXTER. What do you figure it will be at that estimate?

Commander COBEY. We are using the present market price; we are not allowing for any rise in market price, because we are sure that the market price will come down if it changes.

Senator POINDEXTER. Any change will be to your advantage? Will it leave a surplus in this fund?

Commander COBEY. Yes, sir; possibly. However, there is a strike in progress now, and every strike in the past has

rise in prices for several months, so that we feel that we are unable to make any prediction on coal prices.

Senator HALE. What do you estimate the average price?

Commander COBEY. \$8.849. That is including coal used at Cavite at all other points.

USE OF JAPANESE COAL.

Senator HALE. Do you use Japanese coal on the Pacific?

Commander COBEY. Not for anything but power plants, as a rule. It is usually on ships.

Senator HALE. It is cheaper, is it not?

Commander COBEY. It is cheaper, but it is a highly volatile coal, with a tremendous wastage, and ordinarily the heating value is only two-thirds of that of Pocahontas or New River coal. The amount of volatile matter is so great that it is impossible to use it satisfactorily in the confined fireroom spaces on board naval ships. These results have been obtained from experiments made with Japanese coal in the

Senator HALE. It clogs the machinery?

Commander COBEY. The ash content is so large that there is a clogging of the machinery on that account. Japanese coal reduces the steaming radius of the ship and also taxes the endurance of the fire-stoking the furnaces.

Senator POINDEXTER. I do not want to go into it at any great length, but are you familiar with the results of the testing of Alaskan coal from the Matanuska field?

Commander COBEY. I am not Senator. That has been handled by the Chief of Naval Operations. I am familiar with that only in a general way. Only the financial features have been handled by the Bureau of Supplies and Accounts.

Senator POINDEXTER. That is all. I have no other questions to ask.

Captain LEUTZE. There are one or two other points that I would like to mention in connection with this statement. The first one is that this estimate takes care of 18 battleships, whereas the estimate for \$17,000,000 submitted to the House Appropriations Committee only took care of 12 in active commission and 6 in ordinary, tied up in docks, and practically burning very little fuel.

Another thing I want to call attention to is the note at the bottom of page 1. These figures only estimate for a destroyer 3.75 days in month of steaming, and for the other ships making only 4.7 days steaming per month at economical speed.

Then I would also like to call attention to the hearing before the House Committee on pages 1051, 1052, and 1053, in the discussion of fuel oil—the quantities to be used in estimating—and to state that the consumption upon which all of the Navy Department's estimates have been prepared and was based on the performance of 259 destroyers, whereas some of the statements appearing on those pages only mention six destroyers. Those six mentioned were the best six destroyers we have, I am told by the Chief of Operations; so that it is really fair to use them as a criterion for all the others.

Our estimate is made from the average performance of 259 destroyers.

All of these figures are taken from confidential reports which are received in Operations, on records of performance.

Admiral POTTER. The House Committee, Senator, reduced what we requested a certain amount, apparently basing their conclusion upon reports respecting six certain destroyers. Of course we believe that to be an entirely inadequate method of calculation, and our mates are based upon the performance of 259 destroyers. Hence must be much more nearly correct than on the basis of six destroyers. That is the point.

Commander HILL. I might state, also, sir; that our conclusions were from figures which were furnished as of the date of 1, 1922. They were not from old records. These figures represent an average for the entire number on that date, and those are based on the last year's actual performance.

Senator POINDEXTER. Have you any further statement to Captain.

Captain LEUTZE. No, sir.

Admiral POTTER. Mr. Chairman, I would like permission to to the record these statements that we have been quoting from

Senator PAGE. Very well.

(The statements referred to are here printed in full in the record as follows:)

REVISED ESTIMATES FOR APPROPRIATION "FUEL AND TRANSPORTATION, 1923."

1. The following is a revised estimate of funds required under the appropriation "Fuel and transportation, 1923," based on an enlisted personnel of 86,000 men:

Coal, 533,119.86 tons, at \$8.849.....	\$4,717,571
Fuel oil, 5,866,900.23 barrels, at \$2.163.....	12,480,316.00
Gasoline, 4,074,462 gallons, at 24 cents.....	977,871.00
Maintenance of fuel plants.....	876,100
Leased fuel storages.....	92
Water.....	182,000
Ice.....	42
Electric current.....	25
Demurrage.....	18
Tug hire.....	
Miscellaneous.....	
Total.....	19,

2. The above estimate is based on the number of vessels to be in commission during the fiscal year 1923 as shown on page 0051 of the Comptroller's Record for 86,000 enlisted men.

3. The estimate for coal and fuel oil for the vessels above mentioned is based on all vessels cruising 16,200 miles during the year with the following: Oilers will cruise 50,000 miles, ammunition ships will cruise 50,000 miles, colliers will cruise 50,000 miles, cargo vessels will cruise 50,000 miles, ports will cruise 75,000 miles, mine sweepers will cruise 30,000 miles, auxiliary ship will cruise 30,000 miles, one auxiliary ship will cruise 30,000 miles.

Shore activities.—Ammunition lighters, fuel-oil barges, freight boats and launches, water barges and miscellaneous craft are included in the particular cruising distance, as vessels of these types do not have regular schedules and the quantities are based on past performances.

Receiving ships will do no cruising and port consumption only is shown for these vessels.

Shore-based activities. Shore-based submarines will cruise for 16,200 miles.

As shown above, the large majority of the vessels of the Navy will cruise 16,200 miles during the fiscal year 1923. This is at the rate of 16,200 miles per vessel.

three-quarter days' cruising per month for 15-knot vessels, such as battleships, and four and seven-tenths days' cruising per month for 12-knot vessels, such as battleships, cruisers, gunboats, etc. It has been customary in the past to estimate on all vessels cruising one day out of every three (24 hours at economical speed) or cruising slightly over 10 days per month.

The estimate of gasoline requirements is based on the motor boats attached to various naval vessels, such motor boats to operate on an average of 51 days per month.

Unit prices for coal, fuel oil and gasoline are based on present current market prices for these items at tidewater points with differentials for transportation and various forms of delivery required, and are exactly the same as those used in the original estimate published on page 1025 of the report of the subcommittee of the House Committee on Appropriations, Navy Department appropriation bill, 1923, page 1025.

The estimate for maintenance of fuel plants is based on actual expenditures for the month of January, 1922.

Item of leased fuel oil and coal storages represents the actual rental now being paid by the Navy for those leased storages which are to be

used for ice, electric current, tug hire and demurrage are based on actual expenditures for the first six months of the fiscal year, 1922.

Allowance must be made for miscellaneous expenditures not included in the estimate described above. These miscellaneous expenditures are such as compressed air, kerosene used for fuel, steam and other minor charges for transportation "Fuel and transportation." It is believed that the sum \$100,000 is a fair estimate to allow for such miscellaneous expenditures.

The above estimate was prepared in exactly the same manner as the estimate for the appropriation "Fuel and transportation, 1923," published on page 1025 of the hearing of the subcommittee of the House Committee on Appropriations, Navy Department appropriation bill, 1923. The estimate on page 1025 of the hearing is based on an enlisted personnel of 65,000 men. The above estimate is based on an enlisted personnel of 86,000 men.

—Fuel requirements of vessels to be kept in commission during the fiscal year 1923, based on an enlisted personnel of 86,000 men.

Type of vessel.	Number of vessels.	Coal.	Oil.
		<i>Tons.</i>	<i>Barrels.</i>
First line.....	18	126,240.02	768,691.20
Second line.....	5	51,120.00	.....
Subs.....	3	.....	177,957.44
Replenishment line.....	5	27,531.54	.....
Miner.....	1	.....	58,355.10
Second line.....	2	.....	79,724.40
Active.....	103	.....	1,995,886.62
Layers.....	6	.....	176,771.62
.....	84	.....	179,557.56
Gunboats.....	10	46,511.28	53,061.60
.....	5	9,612.49	.....
Tenders.....	6	10,022.58	204,051.60
Tenders.....	7	15,023.34	118,224.00
Tenders.....	1	.....	39,576.60
.....	1	8,424.00	.....
.....	3	6,660.72	66,653.22
.....	3	51,309.95	.....
.....	9	.....	570,622.89
Miner ships.....	2	.....	94,337.82
Commission.....	2	3,238.08	.....
.....	7	26,596.01	159,910.00
.....	3	.....	276,340.20
Ships.....	2	9,568.51	59,346.00
.....	8	10,525.68	61,371.42
.....	19	.....	321,480.00
.....	1	3,816.90	.....
Miscellaneous.....	5	6,167.77	120,291.00
	321	412,368.87	5,582,210.29

Detailed fuel requirements of vessels to be kept in commission, fiscal year 1923, enlisted personnel of 86,000 men—Continued.

	Speed.	Fuel consumption per hour at sea.		Fuel consumption per hour in port.		Total consumption year steam miles.
		Coal.	Fuel oil.	Coal.	Fuel oil.	Coal.
	Knots.	Tons.	Gallons.	Tons.	Gallons.	Tons.
7 submarine tenders:						
Fulton.....	10		500		41.66	
Bushnell.....	10		250		83.32	
Beaver.....	10		310		83.32	
Camden.....	10	1.6		.333		4,930.92
Rainbow.....	10	1.56		.461		5,763.6
Savannah.....	10	1.12		.358		4,328.82
Canopus.....	10		625		75	
Total.....						15,023.34
1 aircraft tender: Wright.....	12		379		147	
1 repair ship: Vestal or Prometheus.....	12	3.21		.562		8,424
3 store ships:						
Bridge.....	12		528		112.5	
Rappahannock.....	12	3.36		.291		6,660.72
Arctic.....	11		410.3		112.5	
Total.....						6,660.72
3 colliers:						
Nereus or Proteus.....	12	3.564		.583		17,458.95
Orion.....	12	3.332		.500		16,121
Jason.....	12	3.66		.554		17,740
Total.....						* 51,309.65
9 oilers:						
Arethusa or Ramapo.....			196		40.64	
Brazos.....	12		616.99		40.64	
Cuyama.....	12		768		125	
Kanawha.....	12		639		141.66	
Neches.....	12		590.40		56.66	
Patoka.....	11		426.80		70.58	
Pecos.....	12		708		87.50	
Sapelo.....	11		473		63.79	
Trinity.....	10½		420		75	
Total.....						* 571
2 ammunition ships:						
Pyro.....	12		673.2		13.33	
Nitro.....	12		451.2		104.16	
Total.....						* 94
2 Fish Commission ships:						
Fish Hawk.....	12	.75		.063		1,619.04
Albatross.....	12	.75		.063		1,619.04
Total.....						3,238.08
7 cargo vessels:						
Kittery.....	15	1.125		.291		5,304
Newport News.....	13	2.47		.125		10,088.57
Bath or Abarenda.....	10	1.125		.166		6,230.34
Sirius.....	12		379		147	
Vega.....	12		379		147	
Regulus or Capella.....	12		379		147	
Beaufort.....	9	.63		.166		4,072.9
Total.....						* 28,588.01
3 transports:						
Henderson.....	12		705.2		134.29	
Agonine.....	12		490		157.5	
Chaumont.....	12		490		157.5	
Total.....						* 394

* Based on 50,000 miles per year steaming.

* Based on 30,000 miles per year steaming.

* Based on 75,000 miles per year steaming.

Requirements of vessels to be kept in commission, fiscal year 1923, based on enlisted personnel of 86,000 men—Continued.

	Speed.	Fuel consumption per hour at sea.		Fuel consumption per hour in port.		Total consumption per year steaming 16,200 miles.	
		Coal.	Fuel oil.	Coal.	Fuel oil.	Coal.	Fuel oil.
	Knots.	Tons.	Gallons.	Tons.	Gallons.	Tons.	Barrels.
	12	4.164	703	.541	196	9,568.51	59,346
						9,568.51	59,346
	11		166.65		20.82		9,875.16
	10		150		17.708		8,739
	12		324.96		19.583		13,835.58
	12	1.1		.166		2,697.12	
	12	1.2		.166		2,833.2	
apso	10	.804		.125		2,179.98	
	12	1.2		.166		2,815.38	
	11		275		30.625		28,921.68
						10,525.68	61,371.42
	12		192		37.5		16,920
	12		3,456		675		304,560
							* 321,480
libal	9	1.33		.208		3,816.9	
aneous:	12		379.8		147		44,097
	12		379.8		147		38,097
	12		379.8		147		38,097
	10	1		.104		3,150.27	
	11	1.232		.208		3,017.5	
						* 6,167.77	120,291
S CRAFT.	10		105		20.82		6,889.28
	10		128		12.5		5,871.48
	12	.5		.125		1,454.4	
	12		199.2		12.5		7,016.28
mpqua	10		158		20.82		8,203.68
	11		165		20.82		8,029.68
ida	11	.679		.104		1,527.6	
	10	.62		.063		1,209.6	
avajo	11	1.056		.083		1,694.4	
	11	1.056		.083		1,694.4	
	12		209		31.5		11,090.4
	12		291.6		25		11,489.64
	12		278.28		31.5		12,356.4
	11		154		21.17		7,804.32
	11		165		25		8,778.84
	12		332		25		12,461.64
	11		165		25		8,778.84
	12		252		25		10,547.64
	12		252		25		10,547.64
	11	1.056		.125		2,008.8	
	10		158		20.82		8,203.68
						* 9,589.2	* 137,869.44
						750,400	
, 4 Eagles							* 60,800
San Fran-				20			
(or Han-				182			
arbor							

miles per year steaming.

on 30,000 miles steaming per year; Procyon, Antares, General Alava, based on 16,200 miles steaming per year.

based on 5,053 miles.

miles steaming per year.

performances of 100 tons per month each.

miles per year steaming.

Detailed fuel requirements of vessels to be kept in commission, fiscal year 1923, enlisted personnel of 86,000 men—Continued.

	Speed.	Fuel consumption per hour at sea.		Fuel consumption per hour in port.		Total consumption per year steaming miles.
		Coal.	Fuel oil.	Coal.	Fuel oil.	
		Tons.	Gallons.	Tons.	Gallons.	
7 submarine tenders:						
Fulton.....	10		500		41.66	
Bushnell.....	10		250		83.32	
Beaver.....	10		310		83.32	
Camden.....	10	1.6		.333		4,930.92
Rainbow.....	10	1.56		.461		5,733.6
Savannah.....	10	1.12		.358		4,328.42
Canopus.....	10		625		75	
Total.....						15,023.34
1 aircraft tender: Wright.....	12		379		147	
1 repair ship: Vestal or Prometheus.....	12	3.21		.562		8,424
3 store ships:						
Bridge.....	12		528		112.5	
Rappahannock.....	12	3.36		.291		6,660.72
Arctic.....	11		410.3		112.5	
Total.....						6,660.72
3 colliers:						
Nereus or Proteus.....	12	3.564		.583		17,458.95
Orion.....	12	3.332		.500		16,121
Jason.....	12	3.66		.554		17,740
Total.....						51,309.95
9 oilers:						
Arethusa or Ramapo.....			196		40.64	
Brazos.....	12		616.99		40.64	
Cuyama.....	12		768		125	
Kanawha.....	12		639		141.66	
Neches.....	12		590.40		96.66	
Patoka.....	11		428.80		70.58	
Pecos.....	12		708		87.50	
Sapelo.....	11		473		63.79	
Trinity.....	10½		420		75	
Total.....						
2 ammunition ships:						
Pyro.....	12		673.2		83.33	
Nitro.....	12		451.2		104.16	
Total.....						
2 Fish Commission ships:						
Fish Hawk.....	12	.75		.083		1,619.04
Albatross.....	12	.75		.083		1,619.04
Total.....						3,238.08
7 cargo vessels:						
Kittery.....	15	1.125		.291		5,304
Newport News.....	13	2.47		.125		10,968.87
Bath or Abarenda.....	10	1.125				6,229.24
Sirius.....	12		379		147	
Vega.....	12		379		147	
Regulus or Capella.....	12		379		147	
Beaufort.....	9	.63		.186		4,073.9
Total.....						26,596.01
3 transports:						
Henderson.....	12		705.2		134.29	
Agonne.....	12		490		157.5	
Chaumont.....	12		490		157.5	
Total.....						

² Based on 50,000 miles per year steaming.

³ Based on 30,000 miles per year steaming.

⁴ Based on 75,000 miles per year, steaming.

MEMORANDUM RELATIVE TO GASOLINE, YEAR 1923, 86,000 MEN.

The estimate for gasoline requirements for fiscal year 1923 is based on the motor boats attached to the various naval vessels, such motor boats to operate on an average of 51 hours per month each, as follows:

Unit per.	Class of vessel.	Number of boats.	Operating 51 hours per month.	Total for 12 months.	Value.
18	Battleships.....	146	110,464.00	1,325,568.00	\$318,136.32
5	Cruisers, second line.....	29	14,484.00	173,808.00	41,713.92
3	Light cruisers, first line.....	6	5,202.00	62,424.00	14,981.76
5	Light cruisers, second line.....	20	4,896.00	58,752.00	14,100.48
1	Aircraft carrier.....	8	4,386.00	52,632.00	12,631.68
2	Mine layers, second line.....	15	5,304.00	63,648.00	15,275.52
103	Destroyers, active.....	206	31,518.00	378,216.00	90,771.84
6	Light mine layers.....	12	1,836.00	22,032.00	5,287.68
84	Submarines.....				
10	Patrol gunboats.....	21	4,284.00	51,408.00	12,337.92
5	Patrol.....	16	7,344.00	88,128.00	21,150.72
6	Destroyer tenders.....	59	30,243.00	362,916.00	87,099.84
7	Submarine tenders.....	52	32,538.00	390,456.00	93,709.44
1	Aircraft tender.....	10	5,100.00	61,200.00	14,688.00
1	Repair ship.....	6	3,162.00	37,944.00	9,106.56
3	Store ships.....	14	6,732.00	80,784.00	19,388.16
3	Colliers.....	6	1,759.50	21,114.00	5,067.36
9	Oilers.....	20	5,416.20	64,994.40	15,598.66
2	Ammunition ships.....	8	4,692.00	56,304.00	13,512.96
12	Cargo vessels.....	12	2,237.50	26,850.00	6,444.00
3	Transports.....	20	13,107.00	157,284.00	37,748.16
2	Hospital ships.....	10	6,528.00	78,336.00	18,800.64
8	Tugs.....	7	1,326.00	15,912.00	3,818.88
19	Mine sweepers.....	19	3,876.02	46,512.26	11,162.95
5	Auxiliaries, miscellaneous.....	16	5,405.32	64,864.00	15,567.36
2	Fish Commission.....	4	816.00	9,792.00	2,350.08
1	Survey ship.....	7	4,386.00	52,632.00	12,631.68
221	Total.....		317,012.55	3,804,510.66	913,082.57
	SHORE ACTIVITIES CRAFT.				
1	Privateer.....		1,530.00	18,360.00	4,406.40
1	Clarinda.....		1,632.00	19,584.00	4,700.16
1	Zumbrota.....		510.00	6,120.00	1,468.80
2	Ambulance boats.....		1,020.00	12,240.00	2,937.60
8	Motor tugs.....		12,296.00	147,552.00	35,412.48
3	Mine sweepers.....		612.00	7,344.00	1,762.56
5	Submarine-base tenders.....		4,896.00	58,752.00	14,100.48
21	Total.....		22,496.00	269,952.00	61,788.48
342	Grand total.....		339,508.55	4,074,462.66	977,871.04

The unit price of \$8.849 per ton for coal used in the estimate of funds required under the appropriation "Fuel and transportation, 1923," is arrived at as follows:

62,864.53 tons used at Pacific coast points from stocks carried in Naval Supply Account fund, at \$8.....	\$503,716.24
21,285.20 tons used at Cavite from stocks carried in Naval Supply Account fund, at \$10.45.....	222,430.34
142,017.71 tons purchased at Hampton Roads for bunkers (f. o. b. mine price \$2.24; freight, \$2.80; trimming, \$0.25), at \$5.20.....	751,273.68
108,600.78 tons (from Hampton Roads) to Atlantic coast ports (price f. o. b. Hampton Roads, \$5.29; water freight, \$2.54), at \$7.83.....	811,194.11
135,544.03 tons (from Hampton Roads) to Pacific ports (price f. o. b. Hampton Roads, \$5.29; water freight, \$.7), at \$12.20.....	1,665,836.13
21,480.49 tons (from Hampton Roads) to Asiatic station (price f. o. b. Hampton Roads, \$5.29; water freight, \$15), at \$20.20.....	435,839.14

46,227.12 tons purchased from Pennsylvania fields and shipped all rail to Atlantic coast points (price f. o. b. mines, \$3.57; freight, 3.51), at \$7.08----- 327,288.00

Total (533,119.86 tons)----- 4,717,577.64

533,119.86 tons coal, \$4,717,577.64 value (average price)----- \$8.89

Fuel oil.

EAST COAST.

Quantity (barrels).	Point of delivery.	Unit price per barrel, bulk.	Total.
31,542	Portsmouth, N. H.....	\$2.80	
78,854	Boston, Mass.....	2.80	
173,478	Melville, R. I.....	2.78	
15,771	New London, Conn.....	2.75	
160,395	Philadelphia, Pa.....	2.65	
286,561	New York, N. Y.....	2.65	
51,542	Guantanamo, Cuba.....	2.58	
123,205	Charleston, S. C.....	2.55	314,173.3
223,478	Norfolk, Va.....	2.60	581,062.8
51,542	Canal Zone.....	2.70	139,183.4
1,358,507	Gulf ports.....	2.25	3,056,641.5
2,551,875	At average.....	2.4418	6,287,675.0
	Add differential per barrel for other forms and points of delivery. (Average of increase over basic prices for deliveries during an 11-month period).....	.17	434,288.7
	Average.....	2.6118	6,672,963.7

WEST COAST.

567,747	San Francisco, Calif.....	\$1.50	
1,577,076	San Pedro, Calif.....	1.50	
378,759	Pearl Harbor, Hawaii.....	2.15	
283,874	Seattle, Wash.....	1.88	
504,664	San Diego, Calif.....	1.65	
3,312,120	At average cost.....	1.629	
	Add differential per barrel for other forms and points of delivery. (Average of increase over basic prices for deliveries during an 11-months' period).....	.187	
	Average.....	1.816	

\$12,690,319.33 ÷ 5,966,990 barrels = \$2.1229.

The average unit price for motor gasoline is arrived at as follows the principal points under present contracts):

East coast:

Boston, Mass.....	
New York, N. Y.....	
Baltimore, Md.....	
Norfolk, Va.....	
Key West, Fla.....	
Port Arthur, Tex.....	

West coast:

Puget Sound, Wash.....	23 -
Mare Island, Calif.....	21 -
Richmond, Calif.....	
San Francisco, Calif.....	
San Pedro, Calif.....	
San Diego, Calif.....	
Pearl Harbor, Hawaii.....	

The unit price of 24 cents per gallon for motor gasoline is shown above, now being paid under contracts for

ch as f. o. b. vessels, at contractor's works, in supplier's barges, in , in tank wagons, in drums, and a limited quantity in cans and cases.

Estimated expenditure of gasoline for motor boats.

	Gallons per hour.
1 foot motor sailing launches, Navy KK 20-horsepower engine	10
otor boats, Van Blerck 6-cylinder or Sterling 6-cylinder, 100-horse-engine	30
otor lifeboats, Kermath 4-cylinder, 20-horsepower engine	10
otor sailing launches and 36-foot motor ambulance boats, Navy HH	6
1 24-foot motor sailing launches, Navy GG engines	4
otor boat, Navy GG engine	4
otor dory, Navy EE engine	2
npun, various, commercial, 6-10 horsepower	5
otor boat, 100-horsepower engine	21
ecial mine-laying launches, Navy KK engines	10
ecial survey boats, "Buffalo" commercial engine, 30 horsepower	15
in screw motor boats, 2 commercial engines, 10 horsepower each	10
otor surf boats	5

—Some of the vessels have 40-foot motor barges for flag duty. These linder engines and will use about 40 gallons per hour.

—Above information furnished by the Bureau of Engineering, March

1923—Cost of maintenance of fuel depots and fuel plants at navy yards and chargeable to the appropriation "Fuel and transportation," fiscal year 1923.

Name of station.	Labor.	N. S. A. use.	Total.
ie, Me.	\$998.32		\$998.32
N. H.	12,645.12	\$5,382.36	18,027.48
	23,373.24	2,483.28	25,856.52
pedo station		42,037.32	42,037.32
depot	47,302.24	36,764.40	84,146.64
avy yard	7,078.56	1,535.16	8,613.72
ok, fuel depot, New Jersey	29,552.88	12,000.00	41,552.88
Philadelphia, Pa.	8,315.52	2,508.24	10,823.76
Washington, D. C.	1,616.16	196.08	1,812.24
Vorfolk, Va.	1,795.92		1,795.92
spot, Yorktown	22,856.28	27,360.00	50,216.28
t, fuel depot	999.36	3,666.84	4,666.20
rs. fuel depot	10,286.04	3,458.40	13,744.44
ing base	18,973.36	10,685.40	29,558.76
Charleston S. C.	3,302.16	107.52	3,409.68
tion, Pensacola		5,297.76	5,297.76
1, Kew West, Fla.	5,565.96	1,069.68	6,665.04
ase, San Pedro		955.32	955.32
spot, San Diego	38,126.16	11,991.00	50,117.16
tion, San Diego		7,647.72	7,647.72
o, training station		6,890.40	6,890.40
hare Island	13,976.16	20,091.84	34,068.00
spot, Tiburon	47,647.92	3,583.52	51,241.44
Puget Sound	18,499.60	4,715.16	23,204.76
ion, Keyport		9,594.72	9,594.72
1, Pearl Harbor	43,169.28	11,850.84	55,020.12
ase, Coco Solo		24,230.76	24,230.76
Juantanamo	18,163.20	4,496.40	22,659.60
1, Olongapo	16,208.16	31,883.40	48,091.56
1, Cavite	31,080.12	98,231.76	129,311.88
1, Guam		14,229.24	14,229.24
spot, Yokohama	2,573.16		2,573.16
spot, Pichilique	5,184.00		5,184.00
1, St. Thomas		5,200.20	5,200.20
1, Tutuila		10,853.40	10,853.40
1, Santo Domingo		18,640.44	18,640.44
tion, Coco Solo		7,159.20	7,159.20
	429,248.88	446,846.76	876,095.64

statement prepared by using actual expenditures reported for the month of January, 1922, figures representing 12 times the amounts reported for that month.

BUREAU OF SUPPLIES AND ACCOUNTS

April 25.

Estimates, 1923.—Cost of leased fuel-oil storage tanks (rental and handling charges) and property used for naval fuel depots chargeable to the appropriation "Fuel and transportation," fiscal year 1923.

Location.	Owner.	Capacity.	Charge.		Ann.
			Rental.	Handling.	
Sewalls Point, Va.	Standard Oil Co. of New Jersey.	Barrels. 55,000			\$
Balboa No. 1, Panama.	Panama Canal.	42,000	\$1,444.00	\$14,486.34	1
Constantinople No. 1.	do.	42,000	2,500.00	6,911.44	3
Constantinople.	Standard Oil Co. of New York.	42,345			3
Naval fuel depot, Constantinople Hook.	Standard Oil Co. of New Jersey.	Acres. 10			\$
Naval fuel depot, Sewalls Point, Va.	Virginian Ry. Co.	42.6			
Naval fuel depot, Newport News, Va.	Chesapeake & Ohio Ry. Co.	40			
Total.					

Handling charges shown above based on actual issues for the 12 months ending 31, 1922, at \$0.04 per barrel into and \$0.04 per barrel out of tanks.

T. W. LEE

RENTAL OF FUEL OIL STORAGE TANKS.

Senator NEWBERRY. I would like to ask a few questions. It rather a small matter, but on the last page, No. 18, I noticed the head of rental of fuel oil storage tanks, the statement we are paying the Standard Oil Co. 21 cents a barrel at Hampton Roads, and 8 cents for storage at the Panama Canal, while we are paying about 80 cents a barrel for storage at Constantinople. It is it so much cheaper to store oil at the Panama Canal than it is right in Hampton Roads, where the greatest market is?

Commander COBBY. The rental charges, Senator, are on a general basis for Panama and for Hampton Roads. There are different minimum charges. There is a charge of 4 cents in and 4 cents out on the volume of oil handled, with a handling charge besides. The volume handled at Hampton Roads is very larger than that at Panama. That is what makes it greater.

Senator NEWBERRY. Taking your statement here of value alone, at Sewalls Point at Hampton Roads, 21 cents a barrel, at Balboa it is 84 cents a barrel, only about one-third of that.

Commander COBBY. The rental at Hampton Roads is \$12,000 a month, provided the quantity does not exceed 12,000 barrels. That quantity in storage; \$12,000 is an estimate of what we handle through that storage next year.

Senator NEWBERRY. Why should it cost that much more there than at Panama; three times as much to store it in the market as it does to store it away down at Panama? I do not understand why there is some reason for its costing four times as much at Constantinople as at Sewalls Point, and ten times as much at Constantinople as at Panama; but why should it cost three times as much to store at Hampton Roads as at the Panama Canal? I do not understand that.

Commander COBEY. At Hampton Roads the contract provides for minimum rental of \$1,000 a month—or \$12,000 a year. For each barrel of oil handled through the storage, a charge of 4 cents in and 4 cents out is made. In addition there is a storage charge of 2 cents per barrel per month based on the average quantity of oil in storage each month. Regardless of the quantity of oil handled, the minimum monthly rental of \$1,000 must be paid.

On the other hand, the contracts at Panama provide at once for fixed rental of \$3,444 per annum at Balboa and \$3,500 at Cristobal, but not for a minimum rental charge. They further provide for handling charge of 4 cents a barrel in and 4 cents a barrel out. There is no additional storage charge of 2 cents a barrel per month. The fixed rentals of \$3,444 and \$3,500, respectively, include this storage charge.

The tank at Hampton Roads is leased from the Standard Oil, and those at Balboa and Cristobal are leased from the Panama

Senator PAGE. Is there anything further, Senator?
Senator NEWBERRY. No.

MAINTENANCE OF FUEL PLANTS.

Senator HALE. I would like to ask a question, Mr. Chairman. Can you explain to me the reason for the estimate for maintenance of fuel plants being so high—\$876,000?

Captain LEUTZE. That is described in detail on page 17 of this statement, by showing each and every place, showing the amount we have to pay for labor in handling the coal or fuel oil in and handling it, and the material used in the upkeep and maintenance of the plant.

The figures here are based on what was actually expended during the past year. In fact, they have been cut down from those expenditures, because we feel that some of the material that is going to be used may be reduced in price.

Now, we are trying to cut down the number of people employed in different places.

Senator HALE. What are the items in there, part for labor and part for what?

Capt. LEUTZE. For material such as wire rope for the buckets, or painting of the buildings—the upkeep of the plant; maintenance charges; water used by the plant itself, and coal.

Senator HALE. And the estimate is practically the same as the expenditures this year?

Captain LEUTZE. No; it is based on the month of January. The figures are on page 1078 of the House hearings. For the eight months ending in February it cost \$849,000 for the fueling plants.

Now we are estimating for \$876,000 for 12 months, showing that we are cutting down all the time.

Senator HALE. That is a good deal of a cut.

Captain LEUTZE. Yes, sir.

Senator HALE. That is because you expect to use less coal and less

Captain LEUTZE. No, sir; it is not that. It is using every means of economizing at those plants, and cutting down the number of people

and the amount of material used. We are saving money, that is, we are doing.

Senator HALE. You do expect to use less fuel?

Captain LEUTZE. Yes; there will be some reduction in 1922. These fixed charges, such as this maintenance of plants, and rental, etc., will go on whether we have a large or small Navy. They have absolutely been reduced to the minimum. The only way to reduce them would be if everything were tied up. That, of course, we would not need them at all.

Senator HALE. The charges for labor should not be so high?

Captain LEUTZE. Practically, for the upkeep of these plants it will be just about what it is now, provided they are kept in readiness for the issue of fuel.

Senator NEWBERRY. I call your attention, for instance, to Cavite where the expenditures last year were \$129,000. Under the plan as proposed here you will have only about one-third of the amount of coal there next year that you have there now, on storage. Why would the maintenance of that cost as much next year as it did this year for \$28,000 worth of material, and repairs?

Captain LEUTZE. We are going to use 21,000 tons of that 28,000 tons we have out there for ships' use. We are going to get Japanese coal in there, to use in the power plants. We are going to take 21,000 tons of coal out there from Hampton Roads.

Senator NEWBERRY. I thought that was for the fleet.

Captain LEUTZE. It will be for the fleet, but it will have to go into storage there.

Senator NEWBERRY. It will not all get there at one time.

Captain LEUTZE. No! but what gets there will not all be used at once. There are not many coal burners. That coal will have to go into there and go into storage, and then go out again.

Senator POINDEXTER. How do you explain the great discrepancy between the cost of fuel stations where labor is cheap, as in the Philippine Islands, and the cost where labor is high, at Hampton Roads and Puget Sound and San Francisco? For instance, to illustrate what I mean, according to your statement here you have \$129,000 for the expenses of running the Cavite fuel station, and \$48,000 for the expenses at Olongapo; whereas at Puget Sound it is only \$23,000, at Mare Island \$34,000, and at Sewalls Point, \$10,000.

Commander COBURN. The fuel plant—coaling plant—at Cavite is very old and of an expensive type to operate, and that is one of the large expenses in handling coal there.

Another thing is that there is a great deal of coal used at Cavite which must be handled through the power plants, whereas at other stations can be loaded virtually from our colliers into the ships. At those points along the west coast the amount of coal handled at any one of those points—San Diego, Puget Sound or San Francisco—is less than the amount handled at Cavite, because most of the fuel at Cavite is oil.

At Puget Sound in the last 12 months we have issued 26,000 tons of coal, and at San Francisco 28,000 tons, and at San Diego 10,000 tons, while at Cavite we have issued 61,000 tons.

The cost of maintenance depends principally upon the amount of coal handled. At Hampton Roads both the coal stored

nactive status, and are merely reserve storages, because we are able to bunker all of our vessels there, direct from the colliers, or from gies loaded by the contractor.

Senator POINDEXTER. That is all.

Commander COBEY. There is very little handling of coal at Hampton Roads, either at Sewalls Point or Newport News.

Admiral POTTER. Mr. Chairman, I just want to discuss the point touched upon by Captain Leutze, that all diminution in this appropriation means diminution in the fleet. Coaling charges remain about the same, with certain variations due to the consumption of from them; but if the plants are open at all, the fixed charges n about the same. Hence, any amount of diminution is an drawback to the efficiency of the fleet.

Senator PAGE. I will ask the Secretary to introduce the next wit-

secretary DENBY. Mr. Curtis, Mr. Chairman, the chief clerk of the department, has a matter to present to the committee.

OFFICE OF THE SECRETARY.

STATEMENT OF MR. F. S. CURTIS, CHIEF CLERK OF THE NAVY DEPARTMENT.

PRINTING AND BINDING.

Mr. CURTIS. This is on page 3 of the bill, Mr. Chairman, printing and binding.

Referring to the bill as it passed the House of Representatives, it requested that, on page 3, after line 18, the following be inserted:

That portion of the appropriation for the Government Printing Office for fiscal year 1922 which may be necessary to execute printing and binding for Navy Department under orders placed with the Public Printer during the fiscal year 1922, within the total allotment to the Navy Department for that fiscal year, is hereby reappropriated and made available during the fiscal year 1923 for that purpose.

The reason for making the foregoing request is as follows:

The pending bill is the first one in which a direct appropriation for printing and binding has ever been carried, it having previously been the practice to allot the Navy Department a certain amount of the appropriation made for the support of the Government Printing Office. At the present time there is approximately \$100,000 worth of billed and uncompleted work for the Navy Department in the hands of the Public Printer, and it is very probable that there will be at least that amount of uncompleted work in his hands on June 30. This is shown by the fact that the amount has more than doubled the last three months, which would indicate that the Public Printer is falling further and further behind each month in executing work for the Navy Department. Unless the legislation above requested is enacted, this \$100,000 worth of uncompleted work remaining in the hands of the Printer on June 30 will become a charge on July 1 against the appropriation for 1923, and the department will require at least another \$100,000, either as an addition to the amount of \$12,250 carried in the pending bill or as a deficiency next December.

After the plan of appropriating direct to the various executive departments for their printing and binding is once inaugurated, this problem of taking care of the "hang over" printing from previous fiscal years will not arise. In other words, the amount of printing remaining uncompleted on June 30, 1923, will be paid for from the appropriation for that fiscal year, which is the one in question, and which, like all other annual appropriations, will remain available for two years for the payment of obligations incurred during the fiscal year.

The department's estimate for printing and binding for 1923 was \$250,000, this being the same amount as we have for 1922. The pending bill, however, carries but \$212,250, this cut having been made by the House Appropriations Committee on the recommendation of the Public Printer, who stated to the committee that his charges for printing and binding for 1923 will be approximately 15 per cent less than for 1922. The department, of course, hopes that this may be the case and is therefore not asking this committee to increase this particular item over the amount allowed by the House of Representatives.

Senator POINDEXTER. You are asking for what, then?

Mr. CURTIS. We are asking for a reappropriation to the Government Printing Office of a sufficient amount of their appropriation for this year to carry out the uncompleted work authorized previous to June 30, 1922.

Senator POINDEXTER. What do you estimate the amount will be?

Mr. CURTIS. About \$100,000, as far as we can estimate.

Senator NEWBERRY. It was estimated for? Printing and binding is estimated for?

Mr. CURTIS. The printing and binding is now allotted to the Navy Department from the appropriation for the Government Printing Office, but we will have a lot of uncompleted work on June 30, and we do not want that charged to the 1923 appropriation.

Senator GLASS. In other words, if the Printing Office had been current with its work this would have been expended?

Mr. CURTIS. Yes, sir.

Senator POINDEXTER. Was that for printing of charts by the Hydrographic Office?

Mr. CURTIS. Not the charts, because there is another appropriation under the naval bill that covers that.

Senator PHIPPS. I think the Senator's question was whether or not this transfer or reappropriation you are asking for will cover hydrographic charts.

Mr. CURTIS. No, sir; it will not. It is used for printing in Hydrographic Office; not for charts.

Senator HALE. This has nothing to do with the request of the department for \$100,000 or more for printing new charts?

Senator CURTIS. Oh; no, sir.

Senator PAGE. Have any members of the committee any further inquiries to make about that? If not, Mr. Secretary, who is the next witness?

Secretary DENBY. The next witness will be Admiral McVay, the Bureau of Ordnance.

BUREAU OF ORDNANCE.

TESTIMONY OF REAR ADMIRAL CHARLES B. McVAY, JR., CHIEF OF THE BUREAU OF ORDNANCE.

Mr. PAGE. How long do you expect your testimony will take,?

REAR ADMIRAL McVAY. I hope to be able to finish in a half an hour. It depends upon the committee; but I have not very much

Mr. PAGE. The only reason I asked the question is that some of the committee are doubtful whether we had better proceed, or take a recess and return at 2 o'clock.

Mr. POINDEXTER. Let us proceed until 1 o'clock.

Mr. PAGE. Very well; proceed, Admiral.

REAR ADMIRAL McVAY. Here are blue prints of the general statement, if you would like to have them [producing blue prints].

I would like to make the same general statement that I made before the House committee, and that is that the bureau is pleased to inform the committee that the appropriations made for the fiscal year 1922 were ample, and due to the establishment of the 40-hour working week, together with the reduction in labor and material, it will be able to carry on its work satisfactorily for the remainder of the fiscal year, with a probability of being able to turn over to the Treasury an unexpended balance of between \$500,000 and \$1,000,000, depending upon whether or not unusual conditions or emergencies arise during the next four months.

The estimates as submitted last July, for the fiscal year 1923, were based upon a wage scale in effect at that time, but took account of a probable reduction in material costs.

The result of the reduced wage scale has been a reduction of approximately 12.5 per cent in labor costs at navy yards and stations. That the bureau is now able to recommend a reduction in the appropriations under the appropriation "Ordnance and ordnance stores," for the fiscal year 1923, from \$13,130,000 to \$12,000,000.

When the naval treaty is ratified and suitable legislation is enacted authorizing the stopping of work on vessels that are to be laid up, this estimate may be further reduced to \$10,700,000, which the bureau believes will be sufficient for its purposes.

That was the statement made to the House Naval Committee in 1922. You will see that, allowing for every possible reduction, without a reduction by the committee, we ourselves reduced it about 20 per cent on going over our calculations.

In the completion of my statement before that committee the chairman was pleased to say, congratulated the bureau on the action I had taken. I said that he believed that he could say for the committee that the appropriation would not be reduced; but if it was reduced it would be by a very small amount.

The appropriation was reduced from \$10,700,000 to \$9,500,000. I do not know for the reduction I do not know; but we need the money.

Mr. SWANSON. What would be the curtailment of your work if the appropriation was reduced to only \$9,500,000?

REAR ADMIRAL McVAY. That would just stop \$1,200,000 worth of necessary work.

RELINING GUNS.

Senator SWANSON. What would be the nature of that work? What would you do, mostly?

Admiral McVAY. We would have to reduce right along the line. For instance, you notice that there is a certain amount in this statement for relining guns. It might be that it would not be possible for me to reline guns that should be relined; and the guns of a ship are always kept in such a condition that they can fire accurately with the amount of ammunition carried aboard.

Senator SWANSON. Without the guns being relined?

Admiral McVAY. Without the guns being relined that ship would be out of commission so far as proper service in action is concerned.

Senator SWANSON. Then you could not have accurate shooting unless the guns were properly lined—in practice?

Admiral McVAY. No, sir; We reline guns, of course, when they approach anywhere near the point so that the ship could not fire through an action and fire her guns accurately. Each shot fired from a gun wears the gun just so much. Instead of rebuilding the gun we take out the liner and put in a new one. It costs about \$30,000, as compared to \$200,000 for a new gun. This always keeps the ships so that they can fire their battle allowance of ammunition.

Senator NEWBERRY. What proportion of the \$10,700,000 is for labor, and what proportion is for material?

Admiral McVAY. There was another part of my statement that I omitted and which I would like to put in the record, and that is that up to 1920 there were various appropriations under the bureau which were carried on certain activities. These were all combined in 1920 so that they could be covered in one appropriation, as the committee thought it would be more difficult to take up so many things.

This estimate of \$10,700,000, which covers all of the things done heretofore under various appropriations, is less than any estimate submitted since 1909.

The labor runs about 7 to the material 2. In other words, it is about 3½ parts labor and 1 of material.

Senator NEWBERRY. You mean by that, there is about \$7,000,000 worth of labor and about \$3,000,000 worth of material?

Admiral McVAY. Yes, sir.

CLERICAL, DRAFTING, AND INSPECTION SERVICE.

Senator HALE. That does not include the labor of the classified employees?

Admiral McVAY. Yes, sir. Of course, the amount allowed for that under this appropriation heretofore has been \$2,000,000, and this year, on account of scrapping the ships, I cut that in half.

Senator SWANSON. You mean, that is for clerk hire?

Admiral McVAY. Yes; it is reduced from \$2,000,000 to \$1,000,000 and includes chemists, clerical, drafting, and inspection service on the side of the bureau.

Senator HALE. In most of the items here you expressly state that "This does not include classified employees."

Admiral McVAY. That is down at the bottom of the page, Senator.

Senator HALE. It is on nearly all of these items.

miral McVAY. Yes; but down at the bottom of the page we included it, \$1,900,000, and that is what we are actually paying for, the first part of the year. At the present time, on account of saving up, our actual expenditures are running about \$1,225,000; by the first of the year we will reduce it by another quarter of a million dollars, so that it will just be cut in half.

VALUE OF ORDNANCE STORES ON HAND.

Senator NEWBERRY. You will have on hand about \$400,000,000 worth of ordnance stores?

miral McVAY. Yes; that takes in everything not installed on the ship, and covers all the reserves of powder and ammunition, guns not installed, and everything like that. No technical ordnance material is covered in this naval supply account. It is all covered in appropriation purchases account, separate.

Senator NEWBERRY. All of this has been paid for, of course?

miral McVAY. Yes; and also when we use it we do not have to pay for it again.

Senator NEWBERRY. I do not suppose that it would be desirable to show any such list as that.

miral McVAY. No, sir.

Senator NEWBERRY. But confidentially, for the information of the committee, will you send up a list, which I would like the committee to see, of the \$400,000,000 worth of ordnance supplies that the Government owns?

miral McVAY. That corrected list has not been drawn up as yet because I am having a survey made of all of our depots and eliminating all materials which are no longer of value.

Senator NEWBERRY. If you have not any list, how do you know the amount of it is \$400,000,000?

miral McVAY. This way, that it is on the books at the present time. I have a list of what we have, but not a list up to date, correct values. It is in the annual report of the Bureau of Supplies and Accounts.

Senator SWANSON. You mean the Bureau of Supplies and Accounts has to your credit about \$400,000,000 worth of materials that have been paid for, and that are subject to your requisition?

miral McVAY. No, sir; that we carry ourselves.

Senator SWANSON. You carry it yourselves? It is all in your possession?

miral McVAY. Yes, sir.

Senator NEWBERRY. If there is no objection on the part of the committee, I would like to have from the supply committee all the information you have as to that amount of ordnance stores.

miral McVAY. Yes, sir; we can send you that.

Senator HALE. Would you like to see it now, Senator?

Senator NEWBERRY. No; he has not got it.

Senator HALE. All of those stores are under the care of Supplies

and

Accounts are under our care.

and Accounts to do with it?

and Accounts to keep

books or anything

like that, under the law: so that they make the annual return. We have charge of the material of which we have a list.

Senator HALE. But you can withdraw those supplies at any time without special authorization?

Admiral McVAY. Yes, sir.

Senator SWANSON. As I understand, the Bureau of Supplies Accounts has already furnished such a list of that material as would furnish, and it is already published?

Admiral McVAY. Yes; the value is given in the annual report of the Bureau of Supplies and Accounts.

Senator SWANSON. We can get that immediately, Senator.

Senator NEWBERRY. That is not what I want at all. I want a description of material that goes to make up that \$400,000,000.

Admiral McVAY. That is what it is. It is an itemized account.

Senator NEWBERRY. It is not published.

Senator SWANSON. Suppose you get that for Senator Newberry! You can find it and give it to him now.

They have the items of it, Senator. The law requires them to track of it.

Senator NEWBERRY. He said a minute ago that he did not have such thing.

Senator SWANSON. He says it is not in his office, but the Bureau of Supplies and Accounts keeps an account.

Admiral McVAY. Yes, sir. Keeps the accounts, but we have charge of the material and have a list of it.

CHARLESTON, W. VA.

Senator POINDEXTER. What are they doing at this armor plant at Charleston, W. Va.?

Admiral McVAY. That is closed. When the naval treaty was on the 8th of February, the Secretary of the Navy gave me to stop work on all contracts for ships to be scrapped under that treaty. Our work at Charleston was chiefly in connection with ships to be built, so that we closed it, and at the present time we are employing in caring for the machinery, and including about 150 people; and on the 1st of July I expect to reduce something like 74 employees.

In the meantime, when the treaties are finally approved, the Secretary will decide on what he wants to do with the plant. The best information I can get at the present time is that the plant will not be maintained for 10 or 15 years, and I believe it will be better to hold this plant as insurance in case of an emergency; and then it may be possible to use it economically for other purposes.

Senator POINDEXTER. But your plan is to keep it in a closed condition in 1923?

Admiral McVAY. For the present, to keep it closed.

Senator POINDEXTER. Why do you spend \$200,000 in a closed-down condition?

Admiral McVAY. It requires a large number of men to keep the machinery. You see, we have a large amount of machinery.

Senator NEWBERRY. You have the details of it?

Admiral McVAY. We have not got the

ator POINDEXTER. I do not care to go into details, but in general \$250,000 is a big item merely for caretaking.

miral McVAY. When you think that we have \$22,000,000 included in that plant, I should not think that is a very large percentage added for maintenance.

ator POINDEXTER. I do not see that for unused property it is very.

miral McVAY. Oh, I see what you mean. I quite agree on that, but I have already cut it in half, myself.

ator POINDEXTER. You were making a mighty good defense of enough. I was just reading from your statement.

miral McVAY. Yes, sir; but that is not the revised statement I gave you. That was the original statement when the inspector out there told me it would cost that amount of money to maintain the plant. I wrote back and told him that his limit was \$125,000, and I came up with a new plan.

ator POINDEXTER. That sounds a good deal better. Torpedoes are not included in that?

miral McVAY. Not in this particular appropriation; no, sir. The Secretary of the Navy has recommended that the last thing on the Ordnance and Ordnance Stores, lines 25 and 26, on page 30, be eliminated.

ator POINDEXTER. That is what was put in by the House?

MANUFACTURE OF TORPEDOES.

miral McVAY. Yes, sir; that closes up our proving ground, and leaves us no place to carry on our proving.

ator POINDEXTER. That is a different subject. I thought you were going to talk about torpedoes.

miral McVAY. That comes under increase of the Navy, on page 62.

ator POINDEXTER. How does it come that under "Ordnance" we include torpedo tubes and maintenance of torpedoes, the overhaul and repair of torpedoes, and do not include the torpedoes themselves?

miral McVAY. Because torpedoes have been construed as armaments and it is made separately.

ator POINDEXTER. There is no reason for the segregation?

miral McVAY. There is reason for the segregation where you use material for new ships.

ator POINDEXTER. What were you going to say about page 62?

INCREASE OF NAVY.

CHANGES IN PARAGRAPH REQUIRED.

miral McVAY. That reads:

the completion of torpedoes under manufacture on April 8, 1922, not to \$400.

ator POINDEXTER. Was that put in at your suggestion?

miral McVAY. No, sir; it was not. As a matter of fact, we are short of torpedoes for destroyers and for submarines, and this on page 62, as written, would have stopped all manufacture of torpedoes and I wrote a letter, with the approval of the Secretary of the

Navy, to the chairman of the committee and pointed out that we had under manufacture at Alexandria 400 torpedoes, on which we had spent \$3,626,000, and that it would cost about \$600,000 to complete, and I did not think it was very good business to throw them away; and I think that was the reason this is entered in here.

At that time I did not think that the bill had affected the manufacture of torpedoes elsewhere for ships under construction, on going over it in the department the legal authorities considered it did stop the manufacture of all torpedoes except that number: so that a new wording was recommended, which would permit us to continue the manufacture of torpedoes which we were making on the 8th of February and which we need very badly.

Now, with the amendment as recommended by the Secretary, we will be enabled to go ahead with our work on torpedoes at Newport and at the Washington yard, and also in Alexandria.

Without the change in wording we will have to stop at every place except for 400.

Senator POINDEXTER. That does not say where you shall do the work.

Admiral McVAY. We would divide that between the Naval Factory at Alexandria, because I believe that is the cheapest way to do it, although I have not yet definitely determined that fact. I have had a board meeting, with a number of officers, together with the heads of two plants, and it seems that the most economical will be to complete 200 at Alexandria and 200 at the Naval Gun Factory. We are keeping track of the expenses for one month further guide in figuring out the cost at each place, and the place as to where they will be manufactured will, of course, be based on economy.

Senator NEWBERRY. Why does it cost more at Newport?

Admiral McVAY. Because the plant at Alexandria is quite different from any other plant we have. It was made really on the Ford system—that is, we buy our parts from commercial concerns and assemble them there. That is all the work we do at Alexandria. Some of the parts we get from commercial concerns, and some of these torpedoes are run through in a systematic manner.

At the other stations we do a good deal of drafting and design work. That accounts for it.

Mr. Chairman, you understand, in regard to this question that Senator Poindexter asked me about torpedoes, that the correction to the bill as recommended by the Secretary of the Navy does not in itself carry any money with it. We have got the money. The question is as to the permission to manufacture; and the subject of the destroyers are of very little value unless we have them to put on them.

Senator SWANSON. What you want to do is to strike out "exceed 400"?

Admiral McVAY. No, sir; the Secretary of the Navy wants the corrections all together, and this commences on the 1st of the House bill. That is in order to straighten out the bill as far as the Bureau of Ordnance is concerned. On the 1st of the Senate bill, after the word "date," insert "Including

ryland." The reason for that insertion is that with that bill as drawn no work could be done on the ship, because she is not under construction, having been delivered.

Senator SWANSON. The *Maryland* is one of the ships that under treaty we keep?

Admiral McVAY. Yes, sir.

Senator SWANSON. And unless that was put there you could not put torpedoes upon that ship?

Admiral McVAY. This is a limit on expenditure of funds for work on vessels under construction on the date of the passage of the act, that ship was completed and delivered, so that she is eliminated. It has nothing to do with torpedoes.

Senator SWANSON. We will have to do that in order for you to have fire control?

Admiral McVAY. Yes; for fire control and antiaircraft battery.

Senator POINDEXTER. That is on line 21? I will strike that out. I see a correction that will eliminate that.

Senator NEWBERRY. I know that you are right, but I would just like to know why you ask that special authorization.

Admiral McVAY. Because the Bureau of Ordnance has a certain amount of money available, and instead of appropriating this year the Navy Department has decided to use available balances for completion of work on ships, and certain work on other vessels. I make appropriation for additional funds. As a matter of fact, we are turn-over funds to other bureaus. But it says here, "and such balance will not be available for other purposes."

Senator POINDEXTER. And you want it to read "and such ships under construction, including the U. S. S. *Maryland*"?

Admiral McVAY. Yes.

Senator POINDEXTER. I see no harm in putting it in, but it says "ships under construction," and she is not under construction. You want it to read "ships under construction, including the U. S. S. *Maryland*." That means that she is also under construction. If she is not under construction, you do not need that language.

Admiral McVAY. She is technically under construction.

Senator POINDEXTER. Well, they are very technical lawyers up there.

Senator NEWBERRY. They will tell you when a ship is under construction.

PROCUREMENT OF GYRO-COMPASS EQUIPMENT.

Admiral McVAY. Then in line 19, after the semicolon, following the word "department," insert the following: "for the procurement of gyro-compass equipments for destroyers not already supplied."

Then in line 19, after the word "completion," insert the words, "armor, armament, and ammunition, and." Otherwise we could not perform any work on these ships.

Page 62, line 20, after the second comma, following the figures "22," insert the word "including," and, after the word "hundred,"

insert the words "of the destroyer type," so as to make the phrase "including not to exceed 400 of the destroyer type." That wording enables us to continue work on torpedoes under construction at the time, and also to complete 400 of the destroyer

like that, under the law: so that they make the annual return. I have charge of the material of which we have a list.

Senator HALE. But you can withdraw those supplies at any time without special authorization?

Admiral McVAY. Yes, sir.

Senator SWANSON. As I understand, the Bureau of Supplies and Accounts has already furnished such a list of that material as it would furnish, and it is already published?

Admiral McVAY. Yes; the value is given in the annual report of the Bureau of Supplies and Accounts.

Senator SWANSON. We can get that immediately, Senator.

Senator NEWBERRY. That is not what I want at all. I want a description of material that goes to make up that \$400,000,000.

Admiral McVAY. That is what it is. It is an itemized account.

Senator NEWBERRY. It is not published.

Senator SWANSON. Suppose you get that for Senator Newberry. You can find it and give it to him now.

They have the items of it, Senator. The law requires them to keep track of it.

Senator NEWBERRY. He said a minute ago that he did not have such a thing.

Senator SWANSON. He says it is not in his office, but the Bureau of Supplies and Accounts keeps an account.

Admiral McVAY. Yes, sir. Keeps the accounts, but we have charge of the material and have a list of it.

CHARLESTON, W. VA.

Senator POINDEXTER. What are they doing at this armor plant at Charleston, W. Va.?

Admiral McVAY. That is closed. When the naval treaty was signed on the 8th of February, the Secretary of the Navy gave instructions to stop work on all contracts for ships to be scrapped under that treaty. Our work at Charleston was chiefly in connection with ships to be built, so that we closed it, and at the present time it is employing in caring for the machinery, and including everything about 150 people; and on the 1st of July I expect to reduce something like 74 employees.

In the meantime, when the treaties are finally approved and the Secretary will decide on what he wants to do with the plant, the best information I can get at the present time is that the two plants will not be maintained for 10 or 15 years, and in the meantime it will be better to hold this plant as insurance in case of emergency; and then it may be possible to use it economically for other purposes.

Senator POINDEXTER. But your plan is to keep it in that condition in 1923?

Admiral McVAY. For the present, to keep it in that condition.

Senator POINDEXTER. Why do you spend money to keep it in a closed-down condition?

Admiral McVAY. It requires a large number of men to maintain the machinery. You see, we have a large amount of machinery.

Senator NEWBERRY. You have the machinery?

Admiral McVAY. We have not got it all yet.

Admiral McVAY. But there is so much depending upon it I would like to read the rest of this statement here so that I can go into that.

For instance, I note in these statements made on the floor of House that there were but six officers at Indianhead before the war and that now there are 17. It has been fully explained to the Naval Committee that there are but six Naval Academy graduates stationed at both Indianhead and Dahlgren now. The other 11 are ex-gunners and staff officers (Supply Corps and Medical Corps). In addition, student officers detailed for post-graduate work are temporarily stationed there under instruction.

It has been stated that guns may be ranged after being installed aboard ship.

Senator POINDEXTER. I notice that one gentleman argued that he could test them in battle. [Laughter.]

Admiral McVAY. Yes. As to ranging them after they are installed aboard ship, that is not possible, and it is only consistent with the statement that laboratory work could just as well be done in a kitchen. For proper ranging a steady platform is required. We have to know the exact temperature of the air, atmospheric pressure, the force and direction of the wind at the various heights the projectile reaches in its travel, temperature of the powder, &c. Then, various observation stations must be maintained so that the range of shot may be cut into the nicest accuracy. It is the nicest thing of firing a gun and then noting the projectile. This is only a preliminary, and all factors heretofore enumerated are necessary in calculating the range of this particular shot and then that the data may be reduced to a common standard.

Now, that is the real reason of the proving ground; that some place where you can see if your calculations are correct whether you are getting the proper results.

Dahlgren is completed now and Indianhead is abandoned work, being maintained as a powder factory only.

It was stated that it would cost \$1,200,000 to complete it. It is now completed. There may be some reason for putting more things down there, but at the present time I do not think it is.

Senator POINDEXTER. On the land?

Admiral McVAY. Yes, sir. Practically all expenditures at Indianhead have been made in connection with the powder factory work being secondary.

The statement was made that there were millions of dollars spent at Indianhead. There was very little spent there; the vast most was spent on powder factory. We have no proper proving ground, and finally we have got to start using it.

The Secretary of the Navy was asked, before the Naval Committee, regarding Dahlgren and Indianhead, and here he said [reading]:

If the resolution is intended to stop activities in Dahlgren I again very vigorously oppose it. I can not see that crippling the Dahlgren works without entering a protest; the committee will then do exactly as it becomes a question of going to Dahlgren and concentrating the

t Indianhead. I should most assuredly advise that Dahlgren be the place. use of the superior range.

What was after the thing had been discussed in the department a long time. I can not emphasize too strongly the necessity keeping that proving ground.

Senator SWANSON. As I understand, the Navy is practically unanimous on the necessity of retaining it.

Admiral McVAY. I have never heard any other suggestion from anybody in the naval service, from the Secretary of the Navy down.

Senator SWANSON. If you did not have that you would not have proving ground whatever.

Admiral McVAY. No.

Senator NEWBERRY. Is there any serious complaint that your fire interferes with navigation?

Admiral McVAY. No, sir; because it is arranged with the Secretary of War, who sets aside certain zones, and of course we have a number of boats down there, and before we fire, if any vessel is in way it is warned to clear the range, and in about 90 per cent of cases we tow them out. In most cases, instead of complaining I think those people are very glad to be helped on their voyage, as most of the vessels are schooners, and they get along faster under than under sail.

Senator NEWBERRY. What about the Maryland fishermen that are interfered with?

Admiral McVAY. From the Maryland fishermen recently we have had any complaints.

About every once in so often at Indianhead we used to get letters from people on the opposite side of the river, or near the river, objecting to the firing of the guns at Indianhead, because it addled them. I went into that. Those complaints had been going on for it 15 years. So when I was formerly stationed in Washington I said, "I want to settle this thing for all time, and I want all the trouble that I can get." We found that at Indianhead almost everybody kept chickens, and some of them were within 200 feet of a 13-inch gun battery, and the chickens hatched all right, without any trouble. They kept right along through the firing season.

We also found that a bluebird had made a nest in a 13-inch gun battery, and one day coming back to feed its young it flew in the line of fire of a gun and it blew all the feathers off it; but the bird still went on attending to business; and with this information the department did not have to spend \$12 for some goose eggs that had been reported as addled. [Laughter.]

Senator PAGE. Have you anything further to say?

Admiral McVAY. I have no further statement to make.

Senator PAGE. Are there any further questions to be asked the Admiral. If not, we will take a recess, now, until 2 o'clock.

Whereupon, at 1.05 o'clock p. m., the subcommittee took a recess (2 o'clock p. m.)

AFTER RECESS.

The subcommittee met, pursuant to the taking of the recess, at 2 o'clock p. m., Senator Page presiding.

Senator PAGE. Senator France would like a moment with us here with reference to Dahlgren and Indianhead.

**STATEMENT OF HON. JOSEPH I. FRANCE, UNITED STATES
SENATOR FROM THE STATE OF MARYLAND.**

NAVAL PROVING GROUND.

DAHLGREN, VA.; INDIANHEAD, MD.

Senator FRANCE. Mr. Chairman and gentlemen of the committee, I shall only take a moment to present this matter.

On page 29 of the bill there is a provision inserted by the Representatives to the effect that no part of this appropriation of any other appropriation contained in this act shall be available for expenditure at the naval proving ground, Dahlgren, Va., except so much as may be necessary to maintain the station on a temporary basis.

I only desire to say that for a long time we have had a proving ground at Indianhead, Md., and that proving ground has served the purposes of the Navy until we entered the emergency of the war. It was then found to be necessary to have an additional proving ground at Dahlgren, Va.

It seems to me that in the interest of economy we should, if possible, reduce the number of proving stations, and if that can be done, certainly Dahlgren should be closed down and Indianhead preserved.

There is one very good reason for that. Indianhead is fully developed, a large amount of money, over \$7,000,000, has been expended there, and Indianhead, in addition to that, has connections through Maryland and also river connections through the Potomac, whereas Dahlgren has no railroad connections. All heavy ordnance for testing at Dahlgren must be transported to Indianhead and then transported across the Potomac to Dahlgren or shipped by water direct to Dahlgren.

I am under the impression that the department is favoring continuing Dahlgren as a proving ground, but I am under the impression that Congress did very wisely in differentiating between the two in the interest of the country in urging that the Proving Ground be retained and that Dahlgren be closed, as it was a plant which was only maintained during the emergency of the war.

Personally, I feel that the Senate should retain Indianhead in the bill. Of course, it means much to us in that State, and I hope that the Senator from Virginia will join me in urging that Indianhead be the proving ground instead of Dahlgren.

Senator SWANSON. The Government says, if it should close Indianhead and keep Dahlgren. If you do that, one, we might do that.

Senator FRANCE. The Senator from Virginia and I are on this question, I think, and quite naturally so. I am for Maryland and for Indianhead, which is quite an

id, and I would not be pleading for Indianhead over Dahlgren. I did not feel that the service would be well protected in adopting a policy of retaining Indianhead instead of Dahlgren; but I do wish in any way, as you all very well know, to hamper the work of the Navy Department.

Thank you, Mr. Chairman.

Senator PAGE. Senator, you are a member of our committee. Come again when any other matter comes up in which you are inter-

tor FRANCE. Thank you, sir.

Senator SWANSON. Admiral Coontz, you and all the Navy are in favor of keeping Dahlgreen; is not that true?

Admiral COONTZ. Yes, sir; we favor keeping Dahlgren, and also Indianhead to such an amount as the Bureau of Ordnance desires. Of course the powder factory goes on at Indianhead, anyway.

Senator HALE. What would happen, Admiral, if the House amendments were left in?

Admiral COONTZ. In my judgment the Bureau of Ordnance would not be hampered in ranging its guns.

Senator SWANSON. It would practically have no adequate proving grounds, would it?

Admiral COONTZ. No. From the testimony of Admiral McVay this morning, they would have no adequate proving ground.

Senator HALE. You do not think we could have a satisfactory proving ground at Indianhead?

Admiral COONTZ. For the long-range high-power guns; no, sir. I do not think there is room there.

Senator HALE. And it is necessary to have some proving ground for these guns?

Admiral COONTZ. Yes, sir; and it has been under consideration for many years. I do not think the war brought it on. It has gradually developed. When they got the guns with long range they began looking for a proving ground several years ago, and not lately.

Senator SWANSON. It was actually proved that with the 16-inch guns they simply have to make calculations on a supposition of what they do at a certain distance, and they only have a short distance at Indianhead, and when they came to test the 16-inch gun they found their calculations were 3,000 yards out of the way; is that not correct?

Admiral COONTZ. That was the statement made this morning.

Senator HALE. Is there any attention being given to the Indian Proving Grounds?

Admiral COONTZ. Not at the present time. They will keep up their powder factory there, but the work has to be carried on, and as you know, we have up to 16-inch guns now, and there is no telling what will come next.

Senator PAGE. Mr. Secretary, what is your wish now?

Assistant Secretary ROOSEVELT. Mr. Chairman, if it is agreeable to the committee, Admiral Gregory is prepared to appear before you to retain items of "Yards and Docks."

Senator PAGE. Admiral, we will be glad to hear you.

STATEMENT OF REAR ADMIRAL L. E. GREGORY, CHIEF OF BUREAU OF YARDS AND DOCKS, ASSISTED BY LIEUT. COMMANDER H. I. ROUZER AND MR. W. M. SMITH.

YARDS AND DOCKS.

Admiral GREGORY. We have several amendments, Mr. C. that we desire to bring before you for your consideration.

Senator PAGE. And in what part of the bill?

Admiral GREGORY. The first item to be considered is on page 4, line 17.

MAINTENANCE, YARDS AND DOCKS.

Senator PAGE. There is where the House would provide \$5, and you ask \$6,750,000?

Admiral GREGORY. \$6,750,000 was the amount which I submitted through the Budget officer. That represented a very conservative amount, which was agreed upon last fall in the Navy Department to ask for this year. The appropriation for the year is \$7,200,000, and we have been struggling along and have had to deny many requests from various navy important items of repair and maintenance by reason of deficient funds. We feel, therefore, that any cut below the amount would be a cut which would be too serious in nature, amount we feel should be retained.

Senator HALE. The Secretary told us you were going to \$6,580,000.

Admiral GREGORY. No; I think there must be some error in that. What I was going to propose in connection with other item—

Senator HALE. That was what he said on the first day.

Assistant Secretary ROOSEVELT. It is in the letter that was submitted. The Secretary may have made an error in the letter, but it is right in the letter.

Senator HALE. Well, I took the figures down, and if in the letter I must have made a mistake.

Assistant Secretary ROOSEVELT. Yes, sir.

Senator SWANSON. Admiral, what I would like to know in connection with the House appropriation for this year of \$5,500,000, what work would you be unable to do if we gave you the \$6,750,000?

Admiral GREGORY. It is impossible to state in advance what work would be left undone, because we have many items of repair are going to be recommended in the appropriation. For example, take the navy yard at Norfolk; a piece of machinery, a roof is leaking badly over a certain shop, and we need money for repairs. If we have the money we can do it; if we do not get the money we tell them it can not be done.

It is for the purpose of putting ourselves in a position to be able to grant those requests more readily that we want the appropriation increased, because if you make it too small we will be unable to do such items as I have just outlined, and on a good many such items that the money is not on hand and we can not authorize it to be done.

or SWANSON. It would usually be in connection with repair and improvements?

al GREGORY. Yes, sir.

or SWANSON. What is the percentage that you give of repair and to what was given last year and, say, in 1916?

al GREGORY. The amounts expended for repairs to public property of the Navy are found to be approximately two-thirds of 1 per cent.

Now, that we feel is entirely insufficient. I think that any man who has the control of a large amount of real estate that he can not get away with two-thirds of 1 per cent and property such as we have to keep up.

or SWANSON. Have you any applications filed by the navy for repairs, for roofing, and improvement, and painting up the property in your possession?

al GREGORY. We have them by the score. I have not them

or SWANSON. Have they accumulated?

al GREGORY. Yes, sir.

or SWANSON. There is an accumulation of those that you have been able to allow this year?

al GREGORY. Yes, sir; a great many of them, and I know of many that are almost in a condition of falling down, because we do not make proper repairs. We know of wiring conditions in buildings that are such as to be unsafe and we can not authorize repairs to be made to make it safe because we have not the

or SWANSON. This appropriation can be either increased or decreased accordingly, as we desire to keep up the property or not the property under this item?

al GREGORY. Yes, sir. The repairs can be made only by an appropriation on this item.

or PAGE. Are there any other comments you want to make, sir?

al GREGORY. I would like to invite your attention to two minor points in connection with this.

In the first place, there may be a disposition to compare appropriations at present with pre-war conditions. Now, that will not be a fair comparison under such an appropriation as we are now discussing, because the reason that we increased the amount of public works: in other words, of public property of the Navy of over two and one-half times from the time the war began. Now, it is a well-known fact that in the first few years after you build any structure the money for repair is not very great, but after, say, five years the repairs begin to come in, and now the time is approaching when a great many of the structures that we built, that we must expect instead of having a reduction in appropriation there really will be an increase. I think you will feel the necessity for an increase after a very short time, and I think, therefore, we are going to have the nature of things when we are cutting this appropriation in the present time.

For example, allotting to 64 different naval stations at the same time for this appropriation, whereas before the war there were only 26 places where we were making allotments of that nature.

So you can see with the value of work and the number of stations you can not compare the conditions to-day with the pre-war conditions.

SALARIES, DRAFTSMEN AND OTHER TECHNICAL SERVICES.

Senator Hale spoke of a question of a little variation in amount in connection with another item which falls very shortly after this on page 46, lines 4, 5, and 6, where there is an appropriation made under "Salaries, Navy Department." At that place, after the pay of draftsmen and other technical services, \$160,000, the amount available under the appropriation—it was not an appropriation the current year; it was an amount taken from maintenance, but the sum limited was \$200,000. I find that we are not getting out as promptly as should be the case and plans and specifications for doing this work under contract or under construction at the various navy yards, and I find at the present time I am very seriously hampered because I have not any more men than I have at the present time, and with the prospect of a cut a lot of my people are now resigning to take positions outside because they are getting higher in civil life. Now, I would like, therefore, to have the appropriation instead of reading \$160,000 to be made \$200,000, the same as in present year, and that in order to avoid the objection on account of increase in appropriation I would propose for your consideration reducing maintenance by the corresponding amount, \$40,000, so that item on page 44, line 17, would read \$6,710,000, and with a corresponding increase in the item on page 46, line 6, make that item \$200,000.

Senator SWANSON. That is limited to draftsmen and experts. You could not put clerks or messengers or anything in that?

Admiral GREGORY. No, sir; they are carried under the other provision that just precedes that.

Senator SWANSON. Well, that is all right.

Senator NEWBERRY. That \$160,000 has already been transferred.

Admiral GREGORY. Well, this year, Senator Newberry, amounts are under a special appropriation. Prior to this year were limited amounts under the appropriation for maintenance.

(At this point the members of the subcommittee responded to a roll call.)

Admiral GREGORY. There was one point I desired to mention—

Senator PAGE (interposing). Will you please again call at the particular line on the page where the item is named are to talk about now?

Admiral GREGORY. I would like to add a further statement in regard to the item under consideration on page 46, line 6, where for the amount of \$200,000 instead of \$160,000. I would like to give this explanation: The sum of \$160,000 was agreed upon before I was appointed Chief of Bureau of Yards and Docks, at the time when the conditions as to the work were not as well as they are at the present time. That amount of \$160,000 was through the Director of the Bureau of the Budget, and it is the reason that it has gone as far as that that I propose to make it the \$200,000 we make the reduction under

It has been a matter of only within the last few weeks that I find the amount of \$160,000 will not permit us to get our work under way promptly and as expeditiously as I would like, and I desire it, therefore, simply to advance the work.

PASSENGER AUTOMOBILE.

Senator NEWBERRY. Admiral, referring again to maintenance, which you mentioned, you have made no comment whatever on the limitation of expenditures for automobiles, and I am assuming that sufficient. I did not count up the number of automobiles, but of pure vehicles there are two hundred and something.

Admiral GREGORY. We have about 228 passenger automobiles at present time.

Senator NEWBERRY. You have sold about 100 this year, have you?

Admiral GREGORY. About 100 have been sold already.

Senator NEWBERRY. And you have 228 left?

Admiral GREGORY. Yes.

Senator NEWBERRY. And it is all shown in the House hearings where they are. I notice one of them was assigned to the commander in chief of the fleet. What particular place is that kept, or does it revolve around with the fleet?

Lieutenant Commander WARREN. One is kept in New York Navy Yard and one kept at San Pedro, Calif. Sometimes they may be needed.

Senator HALE. Are they in use while the commander of the fleet is at sea?

Lieutenant Commander WARREN. No, sir; they are stored away.

Senator SWANSON. What is the next item?

PUBLIC WORKS.

NAVY YARD, MARE ISLAND, CALIF.

Admiral GREGORY. The next item is under navy yard, Mare Island, Calif., page 47, line 5.

Senator SWANSON. You do not want any increase in these other dry yards?

Admiral GREGORY. We will pass those by. They are satisfactory as they stand.

At this place there is made immediately available the sum of \$750,000 for the repairing and rebuilding of dikes, wharves, and quays, and of which the total limit of cost is fixed at \$2,800,000.

SEA WALL.

Since the original hearings on this bill we have been in correspondence with the commandant at Mare Island, and we have almost come to a final agreement as to how the work shall be done. It is the expectation at the present time to have those portions of the sea wall that faces the active industrial portion of the yard rebuilt by yard work, for the reason that it involves such a close coordination with other activities that it is not wise to introduce any outside interests. The estimated cost of that will be in the neighborhood of half a million dollars.

Then the portions of the sea wall on either side of the entrance to the large dry dock being somewhat more isolated from the inner portion of the yard makes it possible to have that work done by contract, and that is our purpose at the present time. That work go on simultaneously with the other.

Senator NEWBERRY. How much is that?

Admiral GREGORY. Just roughly, that is about the same amount. That is, of the amount that can be done during the next year.

Then the work of rebuilding the dikes alongside the approaches to the yard is work that is so entirely separate from the other two portions that I have just mentioned that we can have a contract out for that portion of the work at the same time.

Since this entire work is for the purpose of preventing any further damage, if it is possible to do so, than is now going on, and to reduce the amount of repair to a minimum, it is our desire to have all these pieces of work go on at the same time, and I think if the limit to be made immediately available is fixed at \$750,000, the work somewhere will have to stop during the year, and if we do stop it we will see the damage going on to an increasingly great extent.

Senator NEWBERRY. Is that the place where the damage is done by the teredo?

Admiral GREGORY. That is the place the damage is being done by the teredo; yes, sir. So I am asking that the amount to be immediately available be made \$1,500,000 instead of \$750.

In connection with that same item on line 4, I would like to add after the word "walls" the words "and maintenance dredging" which is customarily done at that yard, and it is a very small amount, and we would like to have the title of this appropriation include that work, so we can have that work done at the same time.

Senator HALE. How much would that amount to?

Admiral GREGORY. It is approximately \$25,000.

DREDGING.

Senator NEWBERRY. What is the amount of the annual dredging by the War Department that keeps the yard open?

Admiral GREGORY. The amount which was covered in the appropriation of General Taylor a short time ago—I believe he appropriated that amount to be approximately \$200,000 to maintain a channel 10 feet deep and 500 feet wide. The War Department expended that amount during the fiscal year 1921.

Senator NEWBERRY. Do you know how much water you can carry up to the yard now?

Admiral GREGORY. The amount we can carry up to the yard at the present time at extreme high water is about 35 feet.

Senator HALE. What is the rise and fall of the tide there?

Admiral GREGORY. About 4 feet 9 inches.

Senator SWANSON. Is it absolutely necessary to do this work now? There has been some discussion about having a dredging station in connection with Mare Island. Is it absolutely necessary for this work to be done now, until the department can reach a conclusion as to what they will do with Mare Island?

Admiral GREGORY. We have considered that question very fully and find that unless this work is done the Mare Island Navy Yard will lose its value to the Navy very seriously curtailed.

I have some photographs which will show you the nature of the difficulties, and from those I think you will see how much damage is being done.

Senator PAGE. Admiral, have we practically abandoned all expectation of building new dry docks at Alameda, Calif.?

Admiral GREGORY. No, sir.

Senator PAGE. Nothing is being provided for that in this year's appropriation bill.

Admiral GREGORY. Well, we will approach an item a little later on in the afternoon under which that will be taken up in discussion.

Senator NEWBERRY. Admiral, do you know how wide that 35-foot channel is?

Admiral GREGORY. Yes, sir; it is supposed to be 500 feet wide.

Senator NEWBERRY. You think it is 500 feet wide and 35 feet deep?

Admiral GREGORY. That was the project of the Army.

Senator NEWBERRY. I know what the project of the Army was, but I am talking about the conditions that exist there now.

Admiral GREGORY. I doubt if it is that now.

Senator NEWBERRY. The question I asked was, how much water can be carried up to the yard now, and how wide the channel is, and your answer was 35 feet of water and 500 feet wide.

Admiral GREGORY. Thirty-five feet would be the depth at extreme low water.

Senator PAGE. Meanwhile, Admiral, is the expense of dredging considerable to maintain that 35-foot depth?

Admiral GREGORY. There would have to be annual dredging going on with these dikes restored.

I might read here the statement as made by General Taylor of the Army Engineers:

On June 1, 1914, there was a depth of 35 feet in the channel, but since that time a shoal of it has shoaled, and there is now a depth, I believe of 31 feet.

That is the most recent information I have.

Senator NEWBERRY. You think he refers to the minimum depth all the way to Mare Island?

Admiral GREGORY. Yes, sir.

Senator SWANSON. Admiral, if the Government should decide not to abandon Mare Island, but to keep it with its present activities and simply have a dry dock down lower and a supply depot, and the ships could come in to be supplied, would this work then be necessary to Mare Island in condition for use under those circumstances?

ALAMEDA, CALIF.

Admiral GREGORY. Yes, sir; I think this work would be necessary at the present time whether you are going to build at Alameda or not, for the reason that even if you do decide to begin work at Alameda it will be quite a number of years before you will be able to get any benefit from it at all, and in the meantime it is considered that it is wise to let Mare Island go down hill. In other words, the present facilities should be maintained, and in order to maintain the present

facilities at Mare Island the restoration of these dikes and sea wall is considered necessary and urgent; urgent for the reason that if we do not do something pretty soon the amount of damage will be more serious and we will have to expend a great deal more money to restore conditions.

Senator PAGE. Is not the probability of a large expense at Alameda diminishing? Is not that a less popular scheme at present than it was two years ago when we began investigations there?

Admiral GREGORY. Well, of that I am not a judge.

Senator PAGE. Well, in view of the fact there is no immediate probability of building a new dry dock at Alameda, would it not be essential that we be more careful to maintain Mare Island?

Admiral GREGORY. Oh, I think so. I think it is necessary to do so.

HUNTERS POINT, CALIF.

Senator SWANSON. Will the present private dock you have which you use jointly, and have the prior right to dock at, give sufficient facilities now?

Admiral GREGORY. You mean the one at Hunters Point?

Senator SWANSON. Hunters Point.

Admiral GREGORY. I think perhaps it does for ships that need docking only, but if you have any extensive repairs to make on those ships I believe that they have to come to Mare Island.

Senator NEWBERRY. Admiral, how much is the Army spending to deepen the channel at Mare Island?

Admiral GREGORY. That depends largely on their appropriation. I recall hearing General Taylor say only a very few weeks ago that he expected that he might have to spend as much as \$200,000 a year in Mare Island Straits and the approach to Mare Island, which he did not think at all an unreasonable amount to spend for such a purpose considering the value to the Government and to shipping.

Senator PAGE. Are we still continuing that expenditure at Hunters Point?

Admiral GREGORY. Why, we have by agreement the right to ships there when we need to have them docked, so that we can draw upon the facilities of Hunters Point as we may require them.

Senator SWANSON. The dock at Hunters Point can accommodate the largest ship that we have, can it not?

Admiral GREGORY. Yes; the Hunters Point dock will take anything we now have or anything that is on stocks.

Senator NEWBERRY. As that channel is dependent upon the Army appropriations and the orders of the Secretary of War, do you not think it is a little hazardous to figure on any particular use of it?

Admiral GREGORY. Well, we are figuring on repairing the dikes, but the dikes would not keep the proper depth.

Senator NEWBERRY. Since the Secretary of War has a lump appropriation and no specific appropriation for that work, of that yard by the Navy Department is dependent upon the necessities of the War Department.

Admiral GREGORY. That is quite true.

Senator NEWBERRY. So that the yard is not quite independent. I mean while his report says there is 31 feet of water, I hope before

hearing is over we will know exactly what the depth of water is to-day, or within a recent day or two, and how safe it is for a ship to sail up there. I do not believe a ship drawing 35 feet of water ever got out of there yet.

Assistant Secretary ROOSEVELT. There are two small points that have not been mentioned. In the first place a disabled ship—which, in all, is one of the very things you need a yard for, to repair a disabled ship injured in battle—never could go there. The second is that where the bottom of a ship comes too close to the bottom of the harbor, ships suck up mud, so there is trouble that way.

Senator POINDEXTER. Explain how you get in trouble that way.

Admiral COONTZ. Of course, when they get too close to the bottom the mud gets in the condensers and reduces their efficiency proportionately.

Senator PAGE. How many vessels do we have, if you know, in our harbor, Admiral, that can not dock at Mare Island?

Admiral GREGORY. Why, we can not take any of our modern battleships up to Mare Island at the present time.

Senator SWANSON. The only way you could take them up there would be to take the guns off of them and dismantle them.

Assistant Secretary ROOSEVELT. I guess we might get possibly 4 out of the 14 under the best conditions.

Senator SWANSON. If you take all the guns off and dismantle them.

Assistant Secretary ROOSEVELT. Yes.

Senator NEWBERRY. You know the trouble they had to get the *California* out of there. I think the last ship they tried to build there was a collier, and they towed her around to New York to put the machinery in.

Assistant Secretary ROOSEVELT. The *Delaware* and the *North Dakota* have load drafts of 30 feet. Now, even if we have 31 feet there we have little or no clearance.

Senator SWANSON. My idea about Mare Island was that we ought to spend any more money there except to keep what we have. We do not want to lose millions of dollars that we have put in there, and we want to maintain what we have, and the ships can not get their supplies there. You have got to have a supply depot farther down, so you have to have your docking farther down, but you can use Mare Island for repairing a great many of your smaller ships, and do a great deal of work there.

Assistant Secretary ROOSEVELT. Yes. It is the intention to continue to use Mare Island for the smaller ships, of which there are enough to keep that yard employed.

Senator SWANSON. The idea of destroying the twenty-five or thirty million dollars we have put in there and building up an entirely new navy yard I do not think appealed to many members of the committee, and I think the committee reached the conclusion that the best way to do so as not to waste the money would be to have a supply depot farther down, so the ships could come in and get supplies and then have docking facilities farther down, and ultimately we will have to go to nearly 40 feet depth for your ships, and it would only be a waste of money to put it into Mare Island, except to keep up its present condition, so we will not lose the money we have already invested in it.

Assistant Secretary ROOSEVELT. That is exactly on what Admiral Gregory's recommendation is based. It is not the intention to close Mare Island, but to increase facilities on the west coast.

Senator HALE. You had an item for maintenance; is that necessary to keep it up?

Admiral GREGORY. That is the maintenance dredging that is being done right along in front of the yard, where we have our ships lying and swinging at anchor. That has to be done every year.

Senator HALE. Even for the small ships?

Admiral GREGORY. Well, up to the limit of ships that can get in the yard.

Senator PAGE. Have you any ships, or are you likely to have any, that can not be taken care of at Hunters Point Dock?

Admiral GREGORY. Hunters Point Dock is able to take care of the largest ship we are now constructing.

Senator PAGE. Why is it not a matter of economy, then, to have Hunters Point Dock rather than to develop Alameda and the suggested point at a very large expense?

Admiral GREGORY. Because, as will be brought out later, Hunters Point is a dry-dock site only, and there is not sufficient room present for a big supply station and to have your supply activities, and that is why the project is under consideration, because of the greater amount of room.

Senator SWANSON. You have got to have a supply base to supply the Pacific coast fleet. You can not have it at Mare Island, because the ships can not get in there; you would have to tear them down to get them in; and at Hunters Point you can not have a supply base there, because of lack of room, so it seems to me all you need to perfect the situation on the west coast is to continue Mare Island and simply have a supply base there so ships can come in and be supplied. Are you saying this amount you request is necessary to keep it in this condition?

Admiral GREGORY. Yes, sir; that was the purpose of this request.

Senator PAGE. Are there any other questions the Senators would like to ask?

Admiral GREGORY. I might say, while we are here, that I have a photograph which would show you the sea wall at Mare Island to pieces. Quite a stretch of that wall is falling to pieces, has been vacated, and the commandant has given orders for it to be used. Quite a long stretch of it has been roped off. A large portion of the wall has fallen into the bay on account of the wall having been eaten away, and we wish to rebuild that wall in a way that it will not be attacked by the teredo again.

Senator PAGE. At what expense?

Admiral GREGORY. That is all included in this amount requested here.

Senator SWANSON. You wanted authorization for how much money immediately available?

Admiral GREGORY. \$1,500,000 immediately available, and the balance of cost to remain as shown here—at \$2,800,000.

Senator SWANSON. Do you think you would spend \$1,500,000 this year?

Admiral GREGORY. I think it quite likely we will exceed that cause I am going to have several contracts and yard-labor construction going on continuously.

Senator POINDEXTER. What depth of water does the Maryland have? Perhaps some other officer can answer that?

Admiral GREGORY. Yes.

Admiral COONTZ. Thirty feet six inches mean draft, Senator.

Senator POINDEXTER. Have you covered Pearl Harbor?

Admiral GREGORY. We have not touched that yet.

Senator PAGE. Would you like that taken up now, Senator?

Senator POINDEXTER. What have you to say about that?

Admiral GREGORY. That comes very shortly.

NAVY YARD, PUGET SOUND, WASH.

The next item is navy yard, Puget Sound. If you want to take these in regular order, we will come to that next.

Under navy yard, Puget Sound, on page 47, line 6, after the colon following the word "Washington," insert "roadways and sidewalks, \$5,000."

ROADWAYS AND SIDEWALKS.

There has been a great deal of grading and filling operations in the yard in the last few years, and the lines of roadway have been moved over to new locations on newly graded ground, and that ground consists of sand and gravel, and therefore makes a pretty poor roadway, and we desire to build roads over that newly graded to facilitate transportation. The item is a comparatively small one and is necessary to facilitate that kind of work.

Senator HALE. Was that estimated for?

Admiral GREGORY. That appeared in the Budget originally; yes, sir; and it was left out by the House.

If you are ready for the next item, on page 47, line 7, after the colon following the figure "\$40,000," insert "Pier No. 4, extension, \$500,000."

PIER NO. 4.

Pier No. 4 as at present is a modern pier in design except as to its length. It is only 500 feet in length and it is too short for the ships that now go to that station. The pier was built before we had these big ships and before we realized that the Puget Sound yard was to be the home yard of so many of our large vessels, and since these large vessels have been going there we find that the yard is very sadly supplied by not having sufficient pier space.

Senator POINDEXTER. How much do you propose to add to it?

Admiral GREGORY. We propose to add a length of 700 feet, making the pier 1,200 feet in length.

Senator POINDEXTER. Will it make it the same length as pier No. 52?

Admiral GREGORY. It will make it the same length as pier No. 5, which was appropriated for in the previous bill.

Senator POINDEXTER. You have been stationed at this yard, have you not?

Admiral GREGORY. Yes, sir; I have, Senator.

Senator POINDEXTER. I wish you would explain briefly to the committee in a practical way why that pier is needed.

Admiral GREGORY. When I went out to Puget Sound a number of years ago I found that the yard was not a modern yard. While it was supposed and expected that it would in time be a yard sui generis for taking care of our largest ships, the improvements that had been installed were not of a kind such as to make it at all adequate to keep these ships going, and studies were made of different schemes while Admiral Coontz, who is here as Chief of Naval Operations, was commandant, and we studied over the problem for many years; but it was not until the beginning of the war that we were able to secure appropriations which would really fit it to take large ships.

There was one exception to that, and that is in regard to the building of the dry dock, and that was finished in 1913; but in respects the furnishing of facilities to ships for mooring them alongside of the piers was made very inadequate by reason of the piers particularly being of wood and very small.

Now, we have begun to modernize the yard and bring it up to a point where it can accommodate the ships that are now placed in the Pacific Fleet, and this item of piers is one of the most important, and for the reason it takes so long to build these piers it is desirable that we do work of this character before we feel the need to be too pressing; but at the present time we have very few stations on the Pacific coast and the need for modernizing this yard, I think, is imperative. There can never be on that coast the same situation that we find on the east coast of so many navy yards, by reason of the fact that harbors into which these large ships can go are very few and scarce.

We therefore think that the Puget Sound yard should be modernized as rapidly as possible, and the building of one pier a year until the yard is thoroughly modernized in this connection is considered necessary and desirable.

Senator NEWBERRY. There are out there now at that yard about 2,500 feet of berthing space, and under construction 2,000 more feet of berthing space?

Admiral GREGORY. Approximately; but when you speak of 2,500 feet of berthing space, that does not necessarily mean anything, because you have got to have it in multiples that can be used by large ships; and the other piers of the yard, Pier 1, for example, is not available for tying up a ship at all, and Pier 2 is only an oil pier and Pier 4 is this one under discussion. Pier 5 is one that is being rebuilt and being modernized, and Piers 6 and 7 are of timber construction and they are hardly safe to tie a big ship to; and practically the only modern piers we have now are those under construction.

Senator NEWBERRY. Do you remember who designed those piers that are not safe to tie a ship up to?

Admiral GREGORY. They are about 20 years old.

Senator NEWBERRY. Well, we had large ships 20 years ago.

Admiral GREGORY. They are wooden piers for small ships, and practically useless for our present big ships.

Senator NEWBERRY. We had big ships then.

Admiral GREGORY. We had no such big ships as we have now, 20 years ago, and the piers have outlived their usefulness and are in very bad repair, and a good many of the piles are decayed.

Senator POINDEXTER. The point I will make is that a good many of them come there to be repaired and there is no berthing space for them. They have to be repaired out in the harbor.

Admiral GREGORY. Yes.

Senator POINDEXTER. And they have to transport the men and material out to the ships instead of tying them up to the piers. Is that correct or not? What is the case?

Admiral GREGORY. We have in our record that he had 26,000 linear feet of ships there at one time, and practically all of that entire fleet had to lie at anchor off the piers, and any supplies that they had had to go out by small boat; workmen who went out to make repairs had to go out in a small boat or in a launch; and working under those conditions is very expensive.

Senator NEWBERRY. It is the only yard on that coast that a battleship can go to, is it not?

Admiral GREGORY. Yes, sir.

Assistant Secretary ROOSEVELT. That is the reason right there. It is the only yard on the coast that we can take a big battleship to, and we now have 11 of our 18 battleships out there. We are just barely able, by the most careful management, to squeeze them in for repairs, and we have not the slightest margin of safety. If anything should go wrong we would be thrown right off our schedule.

RIFLE RANGE.

Admiral GREGORY. Now, on page 47, line 7, after the semicolon following the figure "\$50,000," insert "rifle range, including the purchase of land, \$85,000."

Senator NEWBERRY. Was that estimated for?

Admiral GREGORY. That was estimated for in the Budget; yes, sir; and the House, I understand, left it out this year because of its being a new item. Now, that was a proposition which has been pending for a number of years.

Senator NEWBERRY. If it is a new item, there is no use talking about it because we could not put it in here.

Assistant Secretary ROOSEVELT. It passed the Senate last year, but I am afraid it would go out on a point of order in the House.

Senator POINDEXTER. Make a brief statement in regard to it, and then with regard to the airplane station. I am inclined to think they want both new items, and we would not want to bring them up at all; I would just like to have a brief statement about it.

Admiral GREGORY. With regard to the rifle range, the Navy has felt the need for a great many years of a rifle range where the men of the fleet could secure practice with small arms. There was a rifle range south of Port Orchard, at Olalla, but it was found to be inaccessible during a large portion of the year, and even when it was accessible it was found to be so inadequate and dangerous to use that it has gone out of commission.

A number of officers who are interested in the project searched the country throughout that section and after a number of years' search

finally hit upon this particular place, which is only about a mile and a half from Keyport, where we have the torpedo station, and is about 11 miles north of the Bremerton yard, where it was possible to find a piece of land that was fairly level throughout of its area. It had high ground to the northward. The firing all toward the north and northwest. That land, at the time we first found it, was very slightly under cultivation, and conditions were such as to make that quite nearly ideal. Areas of nature are very scarce in that part of the country, and we there have been recommending for a number of years that the land be selected for a rifle range. When we first began to advocate it, the people were entirely agreeable to letting us take it, and they very reasonable prices, but as the years have gone by—

Senator POINDEXTER (interposing). What was the price at which they offered it?

Admiral GREGORY. The price at which it was first offered, I remember it, was \$18,000 for the total amount of 320 acres. As the years went by and we failed to take the land, the owners began to develop into little truck-garden patches, and it is constantly increasing, so that if we are going to take it at a reasonable price it is obvious we will have to get it before we have improved the whole of it and put it under cultivation. It is for that reason we have felt it desirable and necessary to get the land before the price goes too high.

At the present time the price asked by these owners is in the neighborhood of \$35,000, and we are recommending an appropriation of \$85,000 in order that we will have the means to do some work to build the butts and the firing points and establish the running condition.

We find that the ground is suitable for placing about 200 butts, which will be none too great for the main target field of the Fleet.

Senator POINDEXTER. What is the next item?

Senator NEWBERRY. I just want to ask him one question. Do we know the number and location of the Army rifle ranges on the Pacific coast?

Admiral GREGORY. I am not familiar with that, but I will try to find out for you.

Senator NEWBERRY. Will you put them in the record, please?

Admiral GREGORY. We will make inquiries and see if we can get the information and put it in.

ARMY TARGET RANGES ON THE PACIFIC COAST.

California: Fort Baker; practice at Fort Barry. Fort Baker; 600 yards; pistol range, 200 yards. Fort MacArthur; 600 yards; no range. Fort Mason; practice at Fort Barry. at Fort Barry. Presidio of Monterey; rifle range, 800 yards. at Fort Barry. Francisco; practice at Fort Barry. Fort Rosencrans; rifle range, 600 yards. San Diego Barracks; practice at Fort Rosencrans. Fort Rosencrans; practice at Fort Barry.

Oregon: Fort Stevens; rifle range, 600 yards. Washington: Fort Canby; no range. Fort Casey; rifle range, 600 yards. Fort Columbia; rifle range, 300 yards. Fort Flagler; rifle range, 600 yards; pistol practice indoors. Fort Lawton; rifle range, 1,000 yards. practice at Fort Worden. Fort Whitman; no range. Fort Whitman; 300 yards.

nator POINDEXTER. I would like to inquire as to that of Admiral Coontz.

Are there any arrangements, or could there not be an arrangement between the Navy and the Army whereby the Navy could use such ranges as the Army has, if it has any?

Admiral COONTZ. Why, there are such arrangements, Senator, whenever possible we have been able to use the range at Fort Ton, northwest of Seattle. They have a small range there. And now that the same thing holds everywhere where there are ranges. Of course, you always want a range that is convenient. The idea of a rifle range that we speak of is that the ships can go right up and anchor off Keyport, anywhere between there and Bremerton, and send their men about a mile distant and carry on a camp or come ashore or anything they please, and when we used Fort Lawton we used to send the men by small boats, I think, 16 miles, or something like that. But wherever possible we do use the Army ranges.

In recollection there are very few Army ranges on the Pacific

There is one in Southern California.

Senator POINDEXTER. There is one at Spokane, but that is practically 350 miles inland.

Admiral COONTZ. So there are not very many available, but those that are available we always utilize.

Senator POINDEXTER. What is the next item?

NAVAL STATION, PEARL HARBOR, HAWAII.

Admiral GREGORY. Under naval station, Pearl Harbor, Hawaii, page 47, line 9, after the colon following the word "Hawaii," insert the words and figures "addition to machine shop, \$200,000."

MACHINE SHOP.

In regard to that I desire to state that this work is covered by authority which has been given in previous legislation for the building of a machine shop, and \$300,000 has been appropriated therefor, and the material was secured from the Army surplus without cost to the Navy. It was expected that \$100,000 would be sufficient, but we find that it will cost another \$100,000 by reason of the fact that much of the material that we have secured was not in condition for use.

We have here also some photographs which show that material, how it was found to be twisted and warped, and we found that it would cost a great deal of money to straighten all that steel.

Senator POINDEXTER. You did not make very clear what your point is. You mean by reason of exposure in the open air it became rusted in that way?

Admiral GREGORY. No, sir.

Senator POINDEXTER. That is it?

Admiral GREGORY. This is for the purpose of completing the erection of a machine shop.

Senator POINDEXTER. You have the material?

Admiral GREGORY. We have the material on hand and the foundations have been built. The foundations are also shown in those photographs. That machine shop is one that is greatly needed at

that station. We find that some of the other bureaus, the Bureau of Engineering particularly, has already obtained machine tools they had on hand from other places and that they have purchased and those machine tools have been delivered out at Pearl Harbor and are ready to be installed in this machine shop, but we haven't got the machine shop and we therefore seek to get this amendment for the addition to machine shop of \$200,000 in order to create those facilities.

Senator POINDEXTER. Of what dimensions will this extension be?

Admiral GREGORY. It is 523 feet by 180 feet wide. The material was obtained from the Army, and while that costs us nothing we find that we had to expend a great deal of money on it to get it straight and to bring it up to shape suitable for use.

Senator POINDEXTER. You pointed out that some of this material was warped and twisted. What is your purpose in mentioning

Admiral GREGORY. To show that it will be necessary to spend a good deal of money on that material, even though we got it for nothing. We will have to spend a lot of money on it to make it suitable for use. For instance, in shipping it we found a great many of those columns were too long to get in the ships and we had to cut them in two, and we will have to make splices for them hereafter. Also we found that in the hold of the ships pieces were bent and pieces were broken and we have to overhaul the whole of it to make it suitable for use; and, while it was a gift, we find the cost of making it suitable for use is quite a considerable item.

Senator POINDEXTER. When were these foundations put in?

Admiral GREGORY. These foundations were put in last year and completed the early part of this year.

Senator POINDEXTER. By reason of the arms limitation treaty and the inhibition of any naval base farther west than Hawaii, Pearl Harbor becomes of increased importance, does it not, as a naval base?

Admiral GREGORY. It would seem that Pearl Harbor now becomes our outpost, and that station has been considered by the Navy Department as being most essential—and facilities of this character are, therefore, very necessary at that place. Under the terms of the treaty, of course, it is not possible for us to build ships or anything of that kind in our island possessions west of Pearl Harbor.

Senator POINDEXTER. We have a large dry dock at Pearl Harbor?

Admiral GREGORY. Yes, sir.

Senator POINDEXTER. Is that large enough to take in the battleships?

Admiral GREGORY. Yes, sir.

Senator POINDEXTER. Well, what else have you?

ADDITIONAL STORAGE FACILITIES.

Admiral GREGORY. On page 47, line 10, after the semicolon following the figures "\$65,000," insert the following: "additional storage facilities, \$200,000." We feel that there is a situation quite similar to the one of the machine shop. There are not sufficient storage facilities at the naval station at Pearl Harbor to keep the material stored under proper care. I received, only a few days ago, a telegram from the commandant of the station that on account

icing a large number of our destroyers out of commission at Harbor a great deal of material had to be kept right in the air, material which should be kept under cover away from any possibility of its being tampered with or disturbed.

Storage facilities are necessary in that place. We are considering the construction of a large one-story building with an overhead crane, in order that we can handle heavy material taken from ships that may go out of commission.

WATER SUPPLY.

Now, another item on page 47, line 11, after the figures "25,000" insert the item, "Water-supply extension, \$153,000."

In order to show that up, I think it would be well to take a glance at a map of the station. This is a chart showing the reservation here, and at the present time we obtain water from wells over there [indicating]. It is desired to extend the water supply, because there is a very great shortage of water in that section, and we have to build wells up in this section and have a pipe line come along the water's edge and crossing to the station. Now, the cost of that is \$153,000.

There has been a joint study made by officers of the Army and of the Navy, and the Army desires to hook onto our pipe line after it is in so they can have water down in their reservation, but we have to do our part of this first.

Senator POINDEXTER. What is the matter with the present water supply?

Senator GREGORY. It is too small. There is no trouble with the supply, but there is not enough of it, and it is not possible to get any more from that area because of the limited amount of ground water in the soil.

Senator POINDEXTER. Where do you get your water from now?

Senator GREGORY. We get it now from Moanalua Valley. We are going to a new area entirely for this proposed supply, where we have a greater amount available.

Senator NEWBERRY. Where does the Army get its supply from?

Senator GREGORY. From a well at Fort Shafter.

Senator COONTZ. This proposition has been carefully gone over, I think, by the Army and Navy joint board, of which General Smith is the head, and they favor this scheme.

Senator PAGE. Have you an ample water supply by developing what you can reach out and take?

Senator COONTZ. Yes, sir; we will have.

Senator GREGORY. Only by going to new areas.

Senator COONTZ. By going to new areas.

Senator NEWBERRY. What is the Army project for increasing its water supply?

Senator GREGORY. By hooking onto this proposition of ours. The idea is to propose to join together and tap this new area.

Senator NEWBERRY. I thought they were building their own line?

Senator GREGORY. They probably will build their own line, but it will connect with ours.

Senator NEWBERRY. When their line is built according to their plan, will that increase their own water supply?

Admiral GREGORY. Yes.

Senator NEWBERRY. How much water do you take from the Army pipes now?

Admiral GREGORY. We have at the present time approximately a million and a quarter gallon storage capacity which we are about able to keep filled each day with the pumps now in use that just about pulls us through.

Senator NEWBERRY. I thought that was a flowage of water in the Army pipe. Is not that the fact?

Admiral GREGORY. No; it is a pump flow, supplied from wells.

Senator NEWBERRY. Are they not getting the water from the mountains and running it down hill?

Admiral GREGORY. They are getting it from driven wells.

Senator NEWBERRY. I thought the Army water supply came from the mountains.

Admiral GREGORY. No, sir; I think not. I think it comes from driven wells, all the water being supplied by motor-driven pumps. They are artesian wells, but they have to pump the water. Whether it is because of intervening hills or not I do not know.

Senator NEWBERRY. Does the Army supply you now with a million and a half gallons?

Admiral GREGORY. No, sir; we get that from our own wells. It amounts to less than one-half million gallons per day.

Senator NEWBERRY. You say you have a supply now from the Army pipes. I want to know how much you get from the Army pipe.

Admiral GREGORY. No; the Army gets water from our pipe as well as from their own wells.

Senator NEWBERRY. The Army is getting water from the Army yard reservation?

Admiral GREGORY. They are getting it from near where we get our water up here, Senator [indicating].

Senator NEWBERRY. These are all elevations and whatever comes from here runs down hill?

Admiral GREGORY. These little things indicate meadows and meadow through here.

Senator NEWBERRY. Which way does the water come? Does the Army get water out of the Navy pipe, or does the Navy get water out of the Army pipe? And, if so, how much?

Admiral GREGORY. The point is this: The Navy and Army get water from wells in the same area. That source is found to be adequate. We take all the water that we can from that source. The storage capacity within the naval station is approximately a million and a quarter gallons. Now, of course, whether they use it in one day or not is hard to say. Sometimes we might use more than that, but that is our storage capacity.

Senator NEWBERRY. What is the supply? I am more interested to know how much your daily supply is.

Admiral GREGORY. That I can not tell you, but will find the information in the record.

NOTE.—The records of the last three years show the average use of water from 435,000 to 525,000 gallons per day.

Senator NEWBERRY. It is necessary for us to know if we are to pass on the desirability of a greater water supply for

is necessary for us to know how much you are getting now and how much you need.

Admiral COONTZ. I think Admiral Gregory will be able to find it in the record, because when we were talking about how much the Army should pay and how much the Navy should pay that was brought out. I will ask you to go to the Joint Board records.

Admiral GREGORY. Yes, sir.

Senator HALE. Does the Army have the right of way or does the Navy have the right of way?

Admiral GREGORY. On the proposed new construction I am not sure, but I knew it was supposed to be done jointly by the Army and the Navy. Our part of it is such, however, that we can go ahead and make it a complete system up to the naval station, and then the Army will do the rest from their part, and in order that that will not fall unduly upon us we propose to use some water pipe that is now on hand that the Army has turned over to us. So even though we put our \$153,000 in here we are going to use some of this water which the Army turned over to us and help pay for part of our proposition, and we go to a new area entirely to get our supply. As to the quantities and all, I can have a statement put in the record which will give you the information which you need on that.

NOTE.—The Navy now secures its water for the Pearl Harbor Naval Station from artesian wells in the Monauahua Valley, about 4.7 miles from the station. The water is pumped by three electrically driven pumps through an 8-inch pipe line, while the maximum pumping capacity is reported as 600,000 gallons per day, the reports of the last three years show that the average amount supplied varied from 435,000 to 525,000 gallons per day. The amount of water secured is inadequate for a station as large as Pearl Harbor, and in May, 1921, the Commandant in a telegram made the following statement: "Water situation at this Station and all vessels on allowance. Only one pipe line supplying quantity can not be increased. * * * Water supply of station with war utility complement and vessels of fleet impossible by one pipe line." The question reached after careful investigation is that 1,500,000 gallons per day would be added to the existing water supply. The daily water supply which will be made available under the joint Army-Navy project will be 2,000,000 gallons, of which 500,000 gallons will go to the Army.

Senator PAGE. Somewhere and somehow, Admiral, you think we have enough water there to take care of our present and future wants?

Admiral GREGORY. Not the future wants. Of course, we have been taking care of present wants because we have had to curtail the use of water and everybody has to be very sparing, but it is very evident that there is an increase necessary.

Senator PAGE. And now do you propose to supply that?

Admiral GREGORY. By going to a new area and drilling new wells, installing a new pipe line larger in size, and filling our reservoir from this new area.

Senator POINDEXTER. Have you had any water supply experts examine the source of supply, the quality of the water, etc., to determine whether it was desirable as a permanent source of supply?

Admiral GREGORY. That has been examined by the local authorities; the representatives of the Army and of the Navy have made examinations, and on that board we have engineers, and they also can back upon the station officials to examine the quality of the water to see that it is safe. It has been pronounced to be perfectly safe in every way.

Senator PAGE. Admiral, is there anything more you want to us before we adjourn?

Admiral GREGORY. Yes, sir. I have a few more items here.

NAVAL STATION, TUTUILA, SAMOA.

REBUILDING WHARF.

On page 47, between lines 12 and 13, insert the following: "Naval station, Tutuila, Samoa, rebuilding wharf, \$12,000."

That was an item that appears in the Budget. The wharf wharf that was built between 20 and 23 years ago, and the it is in very unsafe condition, and needs entire rebuilding. requesting an amendment to cover that item.

Senator PAGE. How much do you expect we will have to include the appropriation at Pearl Harbor in all over the House bill?

Admiral GREGORY. \$553,000 for naval station, Pearl Harbor.

Senator NEWBERRY. Added?

Admiral GREGORY. Added.

Senator POINDEXTER. What is the next item?

NAVAL STATION, CAVITE, P. I.

REPAIRS TO WHARF.

Admiral GREGORY. Now, the next item on page 47, between line and 13, under "Naval station, Cavite, P. I.," there are three items, of which two originally appeared in the Budget for the station at Olongapo, but by reason of the closing down of and a transferring of the activities to Cavite we are asking items also be transferred from Olongapo to Cavite: Rebuild timber wharf 278 feet long by 40 feet wide, \$48,000; p floating derrick, \$45,000; power plant modification, \$55, \$148,000.

Senator NEWBERRY. Is that affected by the four-power treaty?

Admiral GREGORY. No, sir; because the item of repairs of for example, contemplates no change of dimensions; it is rebuilding of a wharf that is almost in disuse now by and teredo.

Senator NEWBERRY. The item of ordnance storage might some attention.

Admiral GREGORY. We haven't got that in there.

Admiral COONTZ. We are not asking for that now.

Senator HALE. They have cut that out.

Admiral GREGORY. We have cut that out.

Admiral COONTZ. Because of the treaty.

Admiral GREGORY. Because of the treaty. Then r toon for floating derrick is building a steel pontoon wooden pontoon which was in use for a number of ; have the derrick and the steel for the pontoon, but are it together, and we have asked for that appropriation to pontoon upon which we can erect the derrick once more it to Cavite.

Mr NEWBERRY. Have you the language you want to put in
 Mr GREGORY. Yes, sir; I have just given it.

POWER PLANT MODIFICATION.

plant modification: The reason for that is that the power
 Cavite is a direct-current plant and the power plant at
 Olongapo was an alternating-current plant, and by transferring the
 Olongapo and some new apparatus to take the place of the
 Cavite, we have sent out alternating-current apparatus so the
 station will be an alternating-current station.

Mr NEWBERRY. Do you remember how many times we have
 moved the station from Cavite to Olongapo and back from Olongapo
 to Cavite? They have been doing it for over 20 years. They started
 at Cavite, in 1898, and in almost every administration I think it was
 moved from one place to the other. You moved the machinery out
 of Olongapo and then moved it to Cavite and then back to Olongapo,
 and now it is on its way to Cavite again, and I should think it would
 come out from moving it.

Mr GREGORY. I think you are better posted on that than I am,

Now, unless there is something else on that——

Mr NEWBERRY. No.

AMMUNITION DEPOT, PEARL HARBOR, HAWAII—ADDITIONAL
STORAGE FACILITIES.

Mr GREGORY. Under naval ammunition depot, Pearl Harbor,

Mr PAGE. What is the page and line to which you are re-

Mr GREGORY. Page 48, line 3, after the word "Hawaii," insert
 the following: "Additional storage facilities, \$80,000."

that is for the purpose of providing a storehouse for mines
 on the ammunition depot.

Mr HALE. Was that estimated for?

Mr GREGORY. Yes, sir; all the items that I have given you
 have gone through the Budget.

Mr HALE. Are they included in this lot that the House turned

Mr GREGORY. The House did not include that item.

Mr HALE. Is that on this page here, estimated, new, and
 ?

Mr GREGORY. Yes, sir.

Mr POINDEXTER. It has been estimated for, and state what
 of it is.

Mr GREGORY. The need is for a building to store mines.
 One of our large ships and the destroyers and all carry mines.
 A number of our ships have gone out of commission at Pearl
 Harbor and a lot of those mines are stored in the open air. It is
 not very wise or safe to permit them to be kept in that manner.
 The Bureau of Ordnance is very strong in its opinion that they
 need a storehouse for the storage of mines in that place, and for the
 reasons that we spoke of a short time ago, it is essential that a
 place be provided for this purpose. It is obvious that you can
 store the mines in the same place that you have ships' provisions;

they have to be in a regular ammunition depot, away from the navy yard, and this is at a regular ammunition depot.

Senator SWANSON. How many mines have you to store?

Admiral GREGORY. I do not know how many, but several of them will have occasion to store there. But they have no place for them at the present time.

Senator SWANSON. And no way to bring them back here?

Admiral GREGORY. The question of storage facilities on the Pacific coast is just about the same thing. The storage facilities are very inadequate all along the Pacific coast and at Pearl Harbor.

Senator PAGE. They need them out there.

Admiral GREGORY. We need them with the fleet.

Senator NEWBERRY. Did they appropriate last year \$177,000 for this?

Admiral GREGORY. Yes, sir; and there is additional storage facilities.

Senator PAGE. Was not that appropriation used?

Admiral GREGORY. That appropriation itself is for \$80,000 now, but when that was submitted we called for \$100,000 and got only a part of it, and it shows our judgment was right. We need the additional amount. That is why we need to get this \$80,000.

Senator POINDEXTER. What kind of building are you going to put up there, as to its nature?

Admiral GREGORY. It is a building with hollow-tile walls and a light structural roof.

Senator POINDEXTER. It looks like you could put up an enormous building of that kind and type for \$80,000.

Admiral GREGORY. It is a large building. It is 213 feet long and about 50 feet in width.

Senator POINDEXTER. What did you do with the \$177,000 you appropriated on that item last year?

Admiral GREGORY. With that appropriation a building is being constructed which will hold 1,600 mines, and we find that we need more than the building can hold.

Senator POINDEXTER. Will you get a statement of how many mines you have and just what is to be stored in this additional building—an exact statement—and put it in the record, Admiral?

Admiral GREGORY. I will furnish you the information.

Senator SWANSON. Sixteen hundred mines; and how many does the fleet need to carry with it?

Admiral GREGORY. That is out of my department. I will have to refer to Admiral Coontz on that.

Admiral COONTZ. I will give you this information, sir.

Senator SWANSON. These are all for fleet mines. Do you do all the mining within the 3-mile limit, does it not?

Admiral COONTZ. They do the local mining.

Senator SWANSON. All the mining that is done within the 3-mile limit is done by the Army, as I understand it.

Admiral COONTZ. Generally speaking.

Senator SWANSON. These are fleet mines?

Admiral COONTZ. They are fleet mines.

Senator SWANSON. You have nothing to do with mines?

Admiral COONTZ. Of course, outside of certain limits.

Senator SWANSON. Outside of the 3-mile limit?

ral COONTZ. That is not entirely accurate. The line of decision is a matter of joint agreement between the War and Navy departments.

NAVAL OPERATING BASE, HAMPTON ROADS, VA.

ral GREGORY. Now, on page 48, between lines 8 and 9, insert following item:

operating base, Hampton Roads, Va.; repairs to north breakwater, to be immediately available.

At a report about the middle of the winter that the north breakwater at this base was very badly shaken by reason of heavy storms. timber construction and it is found that it is not standing up. it was hoped it would, and in order to continue the protection of the submarines which are moored just inside this breakwater it necessary to strengthen it very greatly during this coming winter, and it is desired to get the work done before we have the storms of next winter. That is estimated to cost \$200,000, and to be made immediately available. It was left out of the House bill, although it was a matter which went through the Budget officer, and passed through the Secretary of the Navy.

MARINE BARRACKS, SAN DIEGO, CALIF.

For "Marine Barracks, San Diego," on page 48, line 10, we propose to insert an amendment which will provide at that place for the purchase of two small tracts of land without which the construction and completion of the Marine Corps base will be seriously hampered. so we propose after the comma following the word "base" to insert "including not to exceed \$18,000 for the purchase of land." We strike out the figures "\$482,000" and insert in lieu thereof \$100,000."

I have a map here showing the various reservations at San Diego, and I invite your attention to a little area up in here at the north end of the Marine Corps base. There is a triangular piece of land which cuts into the area over which it is desired to extend our construction.

How much land is there there?

ral GREGORY. About 4 acres; a trifle over 4 acres. And if we are to build around that and dodge it it means it is going to cost more to put our pipe lines, railroad, and road, etc., around it than it will cost to pay for the land, and it cuts in there seriously. It is understood by the Marine Corps to be absolutely essential in order that it will not make a weird looking connection.

or HALE. Is that the price that land adjacent to that is going to cost now?

ral GREGORY. There is another area yet besides this one. There is another small area over at the easterly side which is a right one desired in order to have a railroad connection go into the base from the main line of track. At the present time that tract is the possession of contractors who are building the base and are using it from the owners, and when they get through their work unless we can secure that land, that railroad connection will be cut out, and it will therefore be very expensive for us to get our supplies into the Marine Corps base and into the training sta-

tion, which is still farther to the west. We need that as a sort of right of way to serve for both stations.

Senator PAGE. Have we not a large amount of land in there that was given to us?

Admiral GREGORY. Around that locality we have land that was given to us by San Diego; yes, sir.

Senator PAGE. But that we can not utilize?

Admiral GREGORY. That we are utilizing; but this is some land that was not given to us that we have to buy in order to complete the station.

Senator NEWBERRY. Would not the railroad run the siding back into the property?

Admiral GREGORY. I do not know whether they would or not. I doubt whether they would buy the land and then extend the rail over it.

Senator SWANSON. How much is it?

Admiral GREGORY. \$18,000 for both tracts.

Senator SWANSON. How many acres?

Admiral GREGORY. Probably 5 acres altogether. It looks a big amount, but in regard to that right of way, the track is a cur track and runs across a number of lots in such an irregular way it cuts a lot of property in two, and you would have to as much as a man's lot is worth if you are going to take me of it. That is why the amount is so big. Heretofore people have asked greater amounts than at the present time, and now they are down more nearly to a reasonable figure, and we are now mending it.

Senator PAGE. Mr. Secretary, there has been a conference of members of the committee, and the conclusion we have reached is that we had better go over until Monday.

NAVY YARD, MARE ISLAND.

Assistant Secretary ROOSEVELT. All right, sir. With your permission, Mr. Chairman, I am going to ask to insert in the record this telegram we have just received on the depth of the water at Mare Island:

From: Commandant, navy yard, Mare Island.

To: Secretary of the Navy.

Limiting mean low-water depths, San Francisco Bay to entrance Mare Island Straits, 29.2 feet; limiting depth obtains for few hundred feet only at Pinole Shoal; rest of channel from 38 feet. Army Engineers assure channel 36 feet on or before September 1, 1922. Limiting mean low water between entrance Mare Island Straits and causeway, 29.2 feet. With exception of 600 feet south of oil wharf channel carries throughout length from 31 feet; 600-foot stretch now being dredged by Army to be completed. Limiting mean low-water depth, berths C, E, F, 29.2 feet; berth CC, only ship berth, now undergoing annual dredging to 33 feet. Limiting water depth entrance Dry Dock 2, 22.7 feet, due to bank of mud which forms in water-front pocket at entrance, requiring two days to remove necessary. Based on above, commandant considers limiting draft of vessel under her own steam can be carried from San Francisco to yard when front is 28 feet 6 inches under present conditions. When dredging referred to above completed, 30 feet 6 inches.

Senator PAGE. Without objection, we will adjourn until Monday morning at 10.30.

(Whereupon the subcommittee adjourned until Monday, May 8, 1922, at 10.30 o'clock a. m.)

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

MONDAY, MAY 8, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

subcommittee met at 11 o'clock a. m.
present: Senators Page (chairman), Poindexter, Hale, Phipps,
Newberry.
present also: Hon. Theodore Roosevelt, Assistant Secretary of
Navy, and others.

RECESSION OF STATEMENT OF REAR ADMIRAL L. E. GREGORY,
ENGINEER CORPS, UNITED STATES NAVY, CHIEF OF THE
BUREAU OF YARDS AND DOCKS, ASSISTED BY LIEUT. COM-
MODORE HORACE D. ROUZER, CIVIL ENGINEER CORPS, UNITED
STATES NAVY, AND MR. W. M. SMITH.

SENATOR PAGE. Admiral Gregory, are you ready to proceed?
ADMIRAL GREGORY. Yes, sir.

SUBMARINE BASE, SAN PEDRO, CALIF.

SENATOR NEWBERRY. What page of the bill are you on, Admiral?
ADMIRAL GREGORY. Page 48. Between lines 12 and 13 insert the
following item:

Submarine base, San Pedro, Calif.: Toward the development of a submarine
base including the purchase of land, \$100,000.

This is in accordance with the report of the joint congressional
committee appointed to investigate naval-base sites on the west coast.
At present time the submarines frequent the harbor of Los An-
geles have to rely upon a small rented pier for their facilities.
SENATOR NEWBERRY. What do you call the harbor of Los Angeles?
ADMIRAL GREGORY. San Pedro. The proposed site includes 179
acres of tide lands and sections of the bay, and 46 acres of high land.
The city of Los Angeles proposes to donate the entire site, and the
city of San Pedro the tide lands has actually been deposited in escrow with
the Navy.

SENATOR NEWBERRY. What are the terms of that deposit? I mean
the terms, when will we get the title?

ADMIRAL GREGORY. Not until we take over the land and make the
title for it.

SENATOR NEWBERRY. I thought you just said the land is to be do-

ADMIRAL GREGORY. We pay \$1. It is a nominal sum.

Senator NEWBERRY. That is the only condition?

Admiral GREGORY. That is the only condition; yes, sir.

Senator NEWBERRY. Why do we hesitate to pay the dollar—we need an appropriation for it?

Admiral GREGORY. Because we have to get the authority of Congress to take over the land.

Senator NEWBERRY. What would you do with the \$100,000?

Admiral GREGORY. We would begin the development in regard to the erection of building and building a pier.

Senator NEWBERRY. Would it erect buildings, or would it build a pier, or would it grade, or what do you plan to do with the \$100,000?

Admiral GREGORY. It would practically only begin the work. Most of it would be dredging and filling. It is simply the initial expenditure to begin the development.

Senator NEWBERRY. Is it for dredging and filling?

Admiral GREGORY. We expect to use practically all of it for dredging and filling, and the building of a little breakwater.

Senator NEWBERRY. How much water is there now at low tide? I mean by that, is the land on deep water, or is it marshy land that has to be dredged to get a boat to it?

Admiral GREGORY. It is on water of only a moderate depth. We can only get small vessels up to it now.

Senator NEWBERRY. Have you a chart of it?

Admiral GREGORY. It has to be dredged out. We have a less draft than 15 feet at the present time.

Senator NEWBERRY. Will you send and get a chart of it, so we will know what we are talking about?

Admiral GREGORY. I have a chart right here, sir. It is in here [indicating on chart].

Senator NEWBERRY. Is this the land?

Admiral GREGORY. This is the land in here; yes, sir.

Senator NEWBERRY. You have 35 feet of water now, apparently. Is that right?

Admiral GREGORY. I beg your pardon; that is what we are using at the present time.

Senator NEWBERRY. There is no use of dredging there; that is sure. It is up here, somewhere, where there is not any water at all, probably. Will you mark there where the 179 acres of land is? That tide land, of course, goes to high water. Where are you proposing to dredge?

(Admiral Gregory indicated on the chart.)

Senator NEWBERRY. You have no estimate of the cost of dredging at all, have you?

Commander ROUTER. No; except that it is 400,000.

Senator POINDEXTER. How much land does the Government own there now?

Commander ROUTER. We do not own any at the present time. However, the Army has a reservation to the north of the San Pedro submarine base site.

Senator POINDEXTER. What is there at this time in regard to naval submarine facilities—submarine base facilities?

Commander ROUTER. We have 18 temporary buildings now.

Senator POINDEXTER. What ground are they on?

under ROTZER. They are on the ground adjacent to the munitions pier. That is on Los Angeles city property, which they are going to use.

POINDEXTER. Is there anything further on that subject?

SUBMARINE BASE, PEARL HARBOR, HAWAII.

GRADING, RAILWAY, AND HIGHWAY DEVELOPMENT.

MR. GREGORY. The next item is on page 48, line 15, under the item submarine base, Pearl Harbor, Hawaii; after the figures "insert the following: "Grading, railway and highway development, \$25,000."

Is it an extension of improvements already begun, which are greatly needed at this station to improve the facilities.

POINDEXTER. Highway development?

MR. GREGORY. Yes, sir. The amounts to be expended under this item are portions of that amount are for about 750 linear feet of track, and 4,000 square yards of pavement; and the balance for the grading along the northerly part of the base.

NEWBERRY. How much is it in money for each of those items?

MR. GREGORY. For track work, \$4,500; paving, \$12,000; and grading.

HALE. Was this included in the Budget?

MR. GREGORY. Yes.

HALE. If this is not put in, can you carry on the work at the submarine station?

MR. GREGORY. It will greatly interfere with the station, principally on account of the fact that the development work that has been up to date has been done under a hand-to-mouth proposition. Everything is handled in a very expensive manner. It is the purpose of improving facilities around the station that we are doing this sum.

HALE. The largest item was for paving, was it not?

MR. GREGORY. The largest item was for paving.

HALE. Could you not get along without that?

MR. GREGORY. You could get along without it, but it means we are going along over unpaved areas, which is manifestly extremely inconvenient.

HALE. You spoke of putting in a railway track.

MR. GREGORY. Yes; that is \$4,500.

HALE. That will cost \$4,500?

MR. GREGORY. Yes, sir.

POINDEXTER. Have you a map there of the submarine base?

MR. GREGORY. Yes, sir.

NEWBERRY. That is a coral formation there. Can you not use the broken coral for road making? I should imagine you have naturally good roads. I have not been there and I do not

HALE. Is that track necessary to establish railroad connections between portions of the island?

MR. GREGORY. Yes; we have built piers there that have no connections whatever and will probably build others in the near

Senator HALE. Is that necessary to get supplies to them?

Admiral GREGORY. It is necessary in order to handle materials conveniently. Otherwise it means a large amount of manhandling which is not a good way.

Senator HALE. That is the way you have to handle it now?

Admiral GREGORY. Yes, sir.

Senator NEWBERRY. What are the natural highways?

Senator HALE. One minute, please; excuse me. Is that the important item, the railroad track item?

Admiral GREGORY. They really all go together, the grading and roads and the railroad. That is why they are all handled on the subject. We have subdivided it in order that you may see the approximate amounts used for the various subheads. But they ought to be considered as one item for transportation.

Senator HALE. But if you could only get one item, which should you have?

Admiral GREGORY. I should imagine that the railroad connection would be the one; but in order to get the railroad connection through you have got to do some grading; and if you only allow enough for the railroad track and do not have enough for the grading you do not get your track. They all really go together.

Senator HALE. Then the estimate for the railroad track does cover the railroad track and grading which would be necessary for the building of the railroad?

Admiral GREGORY. The grading, together with the railroad.

Senator HALE. The grading is really a part of the railroad?

Admiral GREGORY. Yes; it is a part of the whole proposition. We subdivided it to show each part of the expense; but it should go on as one improvement.

Senator HALE. Then what do you mean by saying that the railroad will cost \$4,500 for the track, if it does not take in the building? What will cost \$4,500?

Admiral GREGORY. The railroad track and the ties and rails.

Senator HALE. The ties and rails?

Admiral GREGORY. Yes, sir. Here is a map that shows it of this.

Senator POINDEXTER. Where is the dry dock now; which way that location; state that so as to identify the place.

Admiral GREGORY. The dry dock is at the station proper, away down at this end [indicating on map].

Senator POINDEXTER. Where is the submarine base?

Admiral GREGORY. The submarine base is up here [indicating on map].

Senator POINDEXTER. Do all these represent buildings, at [indicating]?

Admiral GREGORY. All those are buildings; yes, sir. The one that has recently been constructed, and that has no connection.

Senator NEWBERRY. The railroad runs into these buildings?

Admiral GREGORY. Yes, sir; and there is, as I stated a while ago, 750 feet more of track necessary.

Senator NEWBERRY. That is, from the buildings to the pier?

Admiral GREGORY. Yes, sir.

ator NEWBERRY. Where is this \$12,000 roadway that you are to build?

miral GREGORY. It is along the track here [indicating on map].

ator NEWBERRY. You do not put a roadway under the track?

miral GREGORY. It is alongside. That map is not large enough to show the whole thing in detail.

ator NEWBERRY. What are the natural roads around there? Is all of this coralized around here [indicating]?

miral GREGORY. Yes, it is all coralized.

ator NEWBERRY. The roads are all hard roads anyway, are they coral roads?

ator POINDEXTER. No, there is a lot of earth on top of the

ator PHIPPS. And you have heavy tropical rains.

ator NEWBERRY. They dug nothing but coral out of here for . The road-building material is naturally right here. All you to do to make a road is to put down the coral that they have dug out. Of course they may want a concrete driveway or loading or something of that kind here and there.

ator POINDEXTER. What is your next item, Admiral?

DESTROYER BASE, SAN DIEGO, CALIF.

STORAGE FOR TORPEDOES AND WAR HEADS.

miral GREGORY. On page 48, between lines 15 and 16, insert:

Destroyer base, San Diego, Calif.: Storage for war heads, \$60,000; storage for torpedoes, \$140,000; in all, \$200,000.

ator HALE. In the House hearings I notice that Mr. Kelley, referring to that item, said:

It is not authorized by law, and we will not bother with that.

Thereupon, no further hearings were had upon this point. If this had not been approved by the Budget, why bring it up now?

miral GREGORY. It has gone through the Budget.

ator HALE. It has gone through since that time?

miral GREGORY. No, sir; it went through the Budget last fall. I think there was a misunderstanding on that point. That destroyer base had been established under previous legislation.

ator HALE. So that went through the Budget?

miral GREGORY. So that we want for storage for war heads, \$60,000, and for storage for torpedoes, \$140,000. These buildings are utterly essential for the storage of torpedoes. A great many destroyers have been put out of commission at San Diego, and it is not possible to store the torpedoes in a satisfactory manner without these buildings.

ator NEWBERRY. How many are there to be stored?

miral GREGORY. I have no record at the present time, but I think it must be a very large number, because the destroyers that have been put out of commission are very many. There are nearly 500 of them there.

ator NEWBERRY. How many did you estimate to put in storage? You estimated that it would cost \$140,000?

miral GREGORY. In the neighborhood of 500, with overhaul, painting, and testing space.

Senator NEWBERRY. Five hundred torpedoes. And how many war heads are going into the buildings for which you want \$60,000?

Admiral GREGORY. About the same number.

Senator POINDEXTER. What have you there now in the way of storage facilities?

Admiral GREGORY. There is nothing there now.

Senator POINDEXTER. How many destroyers are laid up there?

Admiral GREGORY. I think in the neighborhood of 75 to 100.

Senator POINDEXTER. What disposal have you made of the equipment of those destroyers?

Admiral GREGORY. They have had to keep it on board up to the present time. I do not believe anything in the way of torpedoes has been put ashore. There have been other things put ashore, but no torpedoes, so far as I have any information.

Senator POINDEXTER. Will you get the detailed information and let us have it?

Admiral GREGORY. We may have that here.

Senator POINDEXTER. Later on let us have it.

Admiral GREGORY. We will make a note and get that for you, Senator.

NOTE.—With the exception of torpedoes of six destroyers, which have been sent to Keyport, they have had to keep the equipment on board up to the present time. All torpedo-tube parts and tools and all air-compressor parts will have to be retained on board. Improvised arrangements are being made to store a number of the torpedoes at Keyport, but difficulty has already been met in transportation of these delicate mechanisms to Keyport. Plans for equipping those destroyers which remain in commission with the latest equipment have been temporarily abandoned, due to congestion at Keyport, and due to having no torpedo depot at San Diego; in fact, no place at San Diego, where a torpedo can even be unboxed, overhauled, or tested for issue. This torpedo material can not be preserved without these facilities at the destroyer base.

Senator POINDEXTER. What else have you?

PROPOSED NAVAL AIR STATION, SAND POINT, WASH.

Admiral GREGORY. The next item is on page 48, after line 15, insert the following:

Naval air station at Sand Point, Wash.: Toward the development of a heavier-than-air station, \$100,000.

This is for the initial construction work and development, grading etc., designed to develop an air station at Sand Point, provided the legislation which will be brought up later for the purchase of this station is included in the bill.

The principal work that would be covered by this appropriation would be the grading and preparatory work of making this site suitable as an air station. This has been covered by this joint congressional committee appointed to investigate naval base sites on the Pacific coast, and presumably you are well acquainted with the details of this purchase.

Senator POINDEXTER. State, briefly, what the advantages of the location are.

Admiral GREGORY. It has been found an absolute necessity to have in the Puget Sound region an air station. It is a very important adjunct to the fleet, and in anticipation of that, studies were begun

ber of years ago, and the entire country was pretty thoroughly gated with a view of finding a place that would be suitable from all the different points of view for an air station.

stigations were made up and down the Sound and around the ic Peninsula, of places east of Seattle, around Lake Wash-, and around Camp Lewis; and upon these investigations in se different places it was finally agreed upon by all those en- in the search that Sand Point was the only suitable station as available. That is on the westerly side of Lake Washington, he northerly limits of the city of Seattle, and it is right near nal which connects Lake Washington with the Sound.

itor PAGE. Admiral Gregory, is not this a matter that we took o years ago, and was it not investigated very thoroughly at me?

iral GREGORY. I believe it was, sir, and I believe that very tive hearings were held on this subject.

or POINDEXTER. What is the next nearest air station to that

iral GREGORY. The next nearest is at San Diego—I do not be- ve have any other on the Pacific coast at this time.

itor NEWBERRY. You ask for \$450,000 for one.

iral GREGORY. That is, nothing nearer than San Diego.

itor POINDEXTER. There is no air station at San Francisco Bay. int I want to bring out, and I do not want to spend much time s now because it will come up later, probably in another bill, ; there is no air station on the Pacific coast nearer than San

How far is it from San Diego to Puget Sound?

iral GREGORY. San Diego is in the neighborhood of 1,500 from Puget Sound.

itor POINDEXTER. The advantage of this point as an aviation ; from the fact that the entire surface of Lake Washington, is 25 miles long and 4 or 5 miles wide, affords a perfect place a maneuvering and approaching and departing of planes; is at the case?

iral GREGORY. Yes; that is perfectly correct, Senator. I my- ade a good many of the investigations in that vicinity, and were also engaged in making investigations. We considered estion of the prevailing air currents, the feasibility of landing getting off the ground, and the question of the suitability of exposure, accessibility to the navy yards, and all these points onsidered together, and Sand Point presented the greatest tal of advantages of any point that was under consideration.

itor POINDEXTER. What is the next item you want to bring up, al?

PROPOSED NAVAL BASE, ALAMEDA, CALIF.

iral GREGORY. On page 48, after line 15, insert the following:

Base, Alameda, Calif.: Toward the development of a fleet base, \$100,000.

PURCHASE OF SITE.

is contingent upon legislation to be mentioned a little bit a regard to the purchase of this area.

is in accordance with the recommendation of the joint con- nal committee appointed to investigate naval base sites on

San Francisco Bay, and a vast amount of information has been brought together bearing upon this selection. This appropriation is recommended in line with that recommendation, and it is for purpose of doing the initial development only, which would consist of investigation of sites, obtaining necessary information by boring and so on as to the nature of the foundations and structures would later have to be built; and, if funds permitted, for the purpose of doing dredging and filling, which is naturally one of the things that would have to be done on this site right at the beginning when any land would be made available for construction work.

Senator NEWBERRY. Is there any estimated cost of any project to build a station there?

Admiral GREGORY. I think approximate estimates have been given before. They have been pretty thoroughly covered in previous hearings, and I think you have that information at the present time.

Senator HALE. There are no new developments in the situation that we did not have last year when the matter was before the committee?

Admiral GREGORY. The only thing is that the land is now donated to the Government—practically donated. They are asking only \$1 for the site—a nominal sum—and the holding open of the land for any great length of time is not a good thing. It is now the decision be made as to whether or not the place is to be held open in order that there may not be any confusion as to the title and the thing open too long. That is the only new thing in the situation.

Of course, the other situation affecting the Navy is the question of the limitation of armament. I doubt if that has any material bearing on this question, however.

Senator HALE. And if we should go ahead and authorize the development of this land and should later develop that whole thing, the expense would be about what?

EXPENSE OF DEVELOPMENT.

Admiral GREGORY. That would be hard to say. I think the expense in a situation of that kind may run anywhere from \$100,000 to \$100,000,000. It depends on what you build.

Senator HALE. Yes.

Senator PHIPPS. Would the amount of \$100,000 be sufficient to determine whether or not this proposed site is suitable? It seems to me like a large amount to expend in investigation.

Admiral GREGORY. No; we have to investigate the nature of the structure before we build it, and this appropriation is for the determination of the nature of the entire situation. It is not to be used as time went on, as affecting the final decision, but that we would have to put up. It would not take a large amount, by any means. We would use whatever we could get for dredging and filling after the general plan had been worked out.

Senator PHIPPS. Can you segregate it, and say how much is for the determination?

Admiral GREGORY. No; this is an amount for preliminary work.

Senator PHIPPS. In these days \$100,000 is not a large amount. At least, I would not consider that it is. How much more would you

require to investigate as to whether or not the proposed site is suitable for the purposes intended?

Admiral GREGORY. I should say that practically nearly all of this could be used for dredging and filling. We have made some investigations of the site at the present time.

Assistant Secretary ROOSEVELT. Perhaps I may clear this up. There is a little misunderstanding on it. This \$100,000 is not really for investigating and determining whether the site is proper or not. Senator PHIPPS. That is what the admiral has stated.

Assistant Secretary ROOSEVELT. This \$100,000 would be used in the same way that \$100,000 would be used at San Pedro; it would be for planning on the project.

Senator SWANSON. As I understand, the appropriation of this \$100,000 would signify that we had approved the project. It would be construed to mean that Congress had approved the project, and you would take the necessary steps for preliminary development?

Admiral GREGORY. Yes, sir.

Senator SWANSON. And that you have not any plan outlined as to what the costs will be?

Admiral GREGORY. The final plans have not been developed.

Senator SWANSON. Would you expect us to approve it without knowing what the ultimate expenditure on the plans would be?

Senator POINDEXTER. That is a matter to be determined by Congress.

Admiral GREGORY. Yes; that would be determined later.

Senator POINDEXTER. I doubt whether it is useful to take this up any length now, because we can not put it in this bill.

Senator SWANSON. How much would you need to ascertain, if Congress should approve this plan, to find out definitely as to the nature of the ground, and reach a conclusion as to whether it is a proper location? How much would you need for that alone?

Admiral GREGORY. I believe we have gone through that particular project.

Senator SWANSON. So that there is no expenditure needed for that, is that correct? Unless Congress is willing to approve this plan and wants to have a base there, the appropriation would not be necessary.

Admiral GREGORY. No, sir.

Assistant Secretary ROOSEVELT. Right.

Admiral COONTZ. This has to be settled and some work done under the terms before January 1, 1924. There is 5,340 acres offered, and plan to build various buildings there. If we do not begin work soon, we will offer lapses.

Senator SWANSON. They have three or four different places.

Admiral COONTZ. There are different storehouses, etc. This started with the Helm board and several other boards, and finally the joint congressional commission of which Senator Ball was chairman made a favorable report on it. This is to take up the preliminary project, to decide whether we will take that 5,340 acres of land and develop it enough for a supply base, or something else at a future time.

Senator SWANSON. And I understand that the Navy has asked for it.

Admiral COONTZ. Yes; the Navy has written a letter to the Bureau of the Budget and copies of it undoubtedly are in the possession of the committee now, recommending this.

San Francisco Bay, and a vast amount of information brought together bearing upon this selection. This appropriation is recommended in line with that recommendation, and it is for purpose of doing the initial development only, which would be of investigation of sites, obtaining necessary information by reconnaissance and so on as to the nature of the foundations and structures which would later have to be built; and, if funds permitted, for the purpose of doing dredging and filling, which is naturally one of the things that would have to be done on this site right at the beginning before any land would be made available for construction work.

Senator NEWBERRY. Is there any estimated cost of any project to build a station there?

Admiral GREGORY. I think approximate estimates have been given before. They have been pretty thoroughly covered in previous hearings, and I think you have that information at the present time.

Senator HALE. There are no new developments in the matter that we did not have last year when the matter was before the committee?

Admiral GREGORY. The only thing is that the land is being donated to the Government—practically donated. They are asking simply \$1 for the site—a nominal sum—and the holding open of these lands for any great length of time is not a good thing. It is desirable that the decision be made as to whether or not the place is to be used in order that there may not be any confusion as to the title and not leaving the thing open too long. That is the only new thing in the situation.

Of course, the other situation affecting the Navy is the question of the limitation of armament. I doubt if that has any material bearing on this question, however.

Senator HALE. And if we should go ahead and authorize the development of this land and should later develop that whole proposition the expense would be about what?

EXPENSE OF DEVELOPMENT.

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Senator HALE. Yes.

Senator PHIPPS. Would the amount of \$100,000 be necessary to determine whether or not this proposed site is suitable? It seems to me like a large amount to expend in investigation simply.

Admiral GREGORY. No; we have to investigate the site of every structure before we build it, and this appropriation would be for the determination of the nature of the entire situation that would be used as time went on, as affecting the foundations of any structure that we would have to put up. It would not take the whole of the amount, by any means. We would use whatever we could for dredging and filling after the general plan had been worked out.

Senator PHIPPS. Can you segregate it, and say how much you would use for the determination?

Admiral GREGORY. No; this is an amount for preliminary work.

Senator PHIPPS. In these days \$100,000 is not a nominal amount, at least, I would not consider that it is. How much would you use

NAVAL TRAINING STATION, GREAT LAKES, ILL.

HARBOR IMPROVEMENT AND SHORE PROTECTION.

Mr. NEWBERRY. What is the condition of the work at the naval training station at Chicago, the harbor improvement and shore protection?

Mr. GREGORY. In regard to the work at North Chicago, we have a contract which is now in progress for the development of a harbor and harbor improvement, and the amount now carried in the bill is simply for the purpose of meeting the obligations of the contract which is now in force. In view of the reduced activity at the training station at North Chicago, we have agreed that we will this time complete that harbor in the manner in which it was originally estimated. For example, we do not expect to go ahead with the remainder of the dredging and other pieces of work which were originally indicated. We are going to let this rest, so that we are not asking for more than enough money in this bill to stand by obligations that have been raised by existing contracts.

Mr. POINDEXTER. What are the obligations?

Mr. GREGORY. The present contract price is \$975,000, and the appropriation as now made is short of paying for that by about \$100,000, so that we are simply asking the sum of \$425,000 to cover obligations, and that leaves a very slight amount left over for the present.

Mr. NEWBERRY. And that completes that project?

Mr. GREGORY. That completes the present contract.

Mr. SECRETARY ROOSEVELT. Not the project.

Mr. GREGORY. The rest of it we have decided we cannot very well do along with at the present time.

NAVAL STATION, KEY WEST, FLA.

DEVELOPMENT AND COMPLETION OF SUBMARINE BASE.

Mr. POINDEXTER. What became of that submarine base somewhere near Key West that we had before the committee last year?

Mr. GREGORY. That work is going on at the present time. It is the completion of a breakwater in order to make that submarine base workable, and it is expected that the work will be completed during the coming summer.

Mr. POINDEXTER. Have you solved the problem that was discussed before the committee last year as to the impossibility of getting a wall that would stand?

Mr. GREGORY. So far as I can learn now, it is the opinion we have made a solution. The difficulty came about through the lack of a marl that was found in that locality, for use in making the breakwater tight, and the former Chief of the Bureau of Yards and Docks took a trip down there in January or February and ascertained changes to be made, which are being followed out, and there is expectation that that breakwater will during the coming year be made suitable to withstand the elements.

Mr. HALE. And we appropriated enough last year to do that, didn't we?

Mr. GREGORY. Yes, sir; it is not necessary to ask for anything more this year on that.

Mr. POINDEXTER. Who is your next witness?

BUREAU OF AERONAUTICS.

**STATEMENT OF REAR ADMIRAL WILLIAM A. MOFFETT, CHIEF
OF THE BUREAU OF AERONAUTICS, NAVY DEPARTMENT.**

Senator PAGE. Admiral Moffett is next on our list. He is to up the aviation projects, I understand.

Admiral MOFFETT. Yes, sir. You will find aviation on 48 and 49 and at the top of page 50, and in the report which accompanies the bill, on page 11.

Shall I take up the first proposed amendment that we have, sir?

Senator POINDEXTER. Yes; go ahead with that.

EQUIPMENT OF AIRPLANES WITH RADIO.

Admiral MOFFETT. The first proposed amendment is on page 48, lines 23 and 24. The amendment proposed is to strike out the words "for use with aircraft built or building on June 30, 1922, and or 24 change "\$165,000" to read \$568,500."

The explanation of the proposed amendment is this: The House the bill as reported and passed took the ground that they could put in for anything involving new construction—even the new construction of airplanes. That item, with an increase of \$403,000 we ask for, is to equip the proposed planes with radio.

Senator NEWBERRY. How many in all?

Admiral MOFFETT. Two hundred and thirteen, in all.

Senator NEWBERRY. Two hundred and thirteen planes?

Admiral MOFFETT. Yes, sir. Of course the planes are practically useless without radio, and that item covers the radio that is to go with part of those planes. We did not ask for all of the radio to go with those planes, because we had to keep inside of the total \$17,000,000 allotted us by the Budget, and we hoped that it might be some improvements after a while in radio, so that we want to change this; so that the money asked for would not cover all of those planes. We had to cut our appropriation. The appropriation we asked for, or that was recommended by the Bureau, was \$21,500,000, and we had to cut that to \$17,000,000 to get it into the Budget; so that we had to just arbitrarily cut off something and there, and among other things we cut the radio down a little.

MAINTENANCE, REPAIR, AND OPERATION OF AIRCRAFT FACTORY, HELIUM PLANT, ETC.

The next item in the bill is "for maintenance, repair, and operation of aircraft factory, helium plant, air stations, fleet activities, laboratories, and for overhauling of planes," and we want to change the amount, \$5,475,000, to read "\$7,093,100."

We are simply asking now to restore what we asked for in the Budget, and which was approved by the Secretary of the Navy and the Bureau of the Budget. The amount we asked for, \$6,611,000 for maintenance and \$475,000 for the purchase of catapults to get a certain number of ships. The House cut our request from \$6,611,000 to \$5,000,000, and added \$475,000 for catapults to maintenance, including it in one item.

on maintenance pays for all of its own activities, for its own the maintenance of its stations, for light and water, and all up of its buildings.

imate we ask for is based on actual experience. In 1921 we \$400,000 on maintenance. Last year we had to economize extent on the greatly reduced aviation appropriations that the bill as passed, that we had to shut up four stations. to reduce flying activities everywhere to keep within the ie appropriation; and aviation, for that reason, in the Navy, not nearly as active as we would have liked to have had it, should be.

tal amount asked for here is based on a very economical and on what we think we need, the lowest amount that we n with, having in view the necessity for economy, and that lo the best we can with what Congress feels they can allow hat we had to ask for and get along with in the Budget.

NAVAL AERONAUTICS BUDGETS OF FOREIGN COUNTRIES.

· POINDEXTER. Can you make a statement based on reliable on as to the comparative amounts appropriated or provided dgets for the next fiscal year, of Great Britain and other for naval aeronautics?

l MOFFETT. Yes, sir; I can give you an average. I can not he Japanese, but I can give you the British and the French, timate as to what the Japanese is.

· POINDEXTER. You can have that looked up and give it to Admiral.

TABLE A.—*Estimates, 1923.*

	Amount.	Total.	United States equivalent.
	\$15,000,000		
	17,000,000		
		\$32,000,000	\$32,000,000
(excluding Royal Air Force in India, civil colonial aviation)	£15,096,500	£15,096,500	66,424,600
	Fr. 250,276,050		
	33,807,300		
	4,500,000		
ks	147,401,502	Fr. 446,000,000	44,600,000
	\$9,968,000		
	9,723,681	\$18,723,681	18,723,681

1921-22.

ely.

in the Japanese budget are so general that appropriations for aviation may be included ads. The figures given above are therefore a minimum (no figures available for 1922-23). used as rate of exchange on English pound. \$0.10 used as rate of exchange on French

BRITISH AVIATION PERSONNEL.

tion with the British air budget, the following data in regard to personnel irect interest. The accuracy of the figures for this personnel furnished rtment was frequently questioned during the debate in the House while ations bill was under discussion, and many erroneous statements were on the testimony of persons having no responsibility for the naval de-

fenses of the United States and not in a position to get complete or reliable information. The following data will show the actual conditions.

The information questioned was furnished from data compiled by the Office of Naval Intelligence, Navy Department, on April 8, 1922, as follows:

British aviation personnel.

	Officers.	Men.	Total
AVIATION.			
Royal Air Force, Jan. 1, 1922.....	3,067	27,813	30,880
Indian Air Force, Jan. 1, 1922.....	1,500	3,000	4,500
COLONIAL AVIATION.			
Canada.....	(?)	(?)	?
South Africa.....	(?)	(?)	?
Australia.....	25	150	175
New Zealand.....	(?)	(?)	?
Total.....			35,555

NOTE.—The proportion of the air force assigned to naval activities is not definitely known, but is considered to be one-third of the total.

The assumption that one-third of this total personnel should be properly charged to naval aviation was personally confirmed to the Chief of the Bureau of Aeronautics by the British air attaché in Washington. This personnel does not include the crews (exclusive of flying personnel) of ships carrying aircraft. These are in Great Britain charged to the Navy.

The table was compiled from information received by the Office of Naval Intelligence, and the estimate for the Royal Air Force (January 1, 1922), 3,067 officers and 27,813 men, total 30,880, can be verified by the British official air estimates for 1922.

The naval attaché, London, verified the above information in his dispatch of April 26, 1922, quoted below:

“ROYAL AIR FORCE.

“The official figures for the personnel of the Royal Air Force have been supplied as follows:

“Officers.....	3,475
“Enlisted men.....	27,700
“Total.....	31,175

(Note of Office of Naval Intelligence.—This is the number which appears in the force estimates for next year. It, therefore, does not include the air force of India which will be paid for by Indian votes, nor the colonial air forces. From the pre-agreement of his total of 31,176 with the British air estimates for next year, I conclude that there is no doubt that this 31,176 means only the Royal Air Force maintained in the British Isles, and it takes no account whatever of either the Indian air force or colonial air forces.)

The attaché further radioed on the same day as follows:

“In the event of an immediate separation of the Royal Air Force into army and navy air forces, the numbers assigned to the navy would be:

Officers.....	8
Enlisted men.....	8
Total.....	16

“The numbers given above would be increased from 50 to 100 per cent upon the declaration of war with some overseas power, and there should be added to that also about 1,000 to cover Royal Air Force personnel engaged in administrative work whose fruit is naval in character.”

Note well that these figures are only for the Royal Air Force personnel, and do not include colonial aviation. Further, they do not include the naval personnel assigned to ships in connection with aviation.

As this data coincided with that shown in the official estimates for the air force ordered to be printed by the House of Commons on March 14, 1922, and as there still be some question as to whether the strength of the Royal Air Force was not

and by the estimates, further information was requested from the naval command, as to the number of men actually in the air service at the present time. The reply received May 7 is here quoted:

Statement: Actual present strength Royal Air Force 2,916 officers, 26,367 men."

6. the following additional information was received from the attaché,

in comparison between the portion of the Royal Air Force assigned to naval duties and the portion of the naval air force is not readily made. However, in this regard the attaché informed me to-day that in case of a separation of the Royal Air Force into an air and a navy wing, the line of cleavage would, generally speaking, adhere to the division between coastal and inland areas commands. He refers us to the air force list for the names of these two groups. The attaché remarks that the ministry informed him that in normal peace times the proportion of the Royal Air Force allotted to the navy would be larger, if anything, than the proportion represented by the coastal areas commands at present. He then sends the details of the list of the navy in case the Royal Air Force were divided between the two

	Officers.	Men.	Total.
.....	32	84	116
.....	12	36	48
.....	30	400	430
.....	20	281	301
.....	1	20	21
.....	13	135	148
.....	1	49	50
.....	44	215	259
.....	92	2,307	2,399
.....	90	3,519	3,609
.....	37	361	398
.....	44	361	405
.....	1	23	24
asus.....	12	52	64
mes.....	5	44	49
le.....	5	71	76
as.....	5	59	64
.....	444	8,017	8,461

ing the ships mentioned above, the attaché remarks that the *Furious* and two other aircraft carriers, are not mentioned because they are out of commission. If they were in service, it would raise the number of officers and men at sea. In addition to this, it will be observed that neither the *Hermes* nor the *Eagle* and as the *Argus* is a large ship and has only five officers listed as being in service, she must also be in an inactive status. The *Hermes*, *Eagle*, and *Argus* are large ships, and when they receive a full quota of Royal Air Force personnel, the number of fliers at sea will be greatly increased. In addition to all the ships mentioned so far, there is the *Vindictive*, 10,000 tons, which is not mentioned, but is in active commission at present. The attaché further remarks that there are no officers of the Royal Air Force attached to capital ships at present, but the attaché in chief may request them when he desires.

It is important to note that the crews of ships consist of the flying personnel only, and do not include the ratings of the Royal Navy who operate these ships. In addition, however, all the ship's complement is charged to aviation.

As stated in House debates that there were not any civilians "to speak of in the air service; that all the men who were performing air duty in the British air service were enlisted men, so that we have a fairly comparable force in the two countries." This statement was made after the civilians working for the Army and the United States had been added to the enlisted personnel of these services, the total quoted—namely, 21,000—compared to the British enlisted personnel which was stated to be 23,000.

It is a misconception that the civilians in the British air service are a negligible quantity, but it may be seen to be erroneous by an inspection of the "Air estimates of effective personnel for the year 1922-23 (presented to Parliament by command of the House of Commons) and ordered, by the House of Commons, to be printed, March 14, 1923. While, doubtless, this estimate (like our own estimates) does not specify

every civilian employed in the air service, it, nevertheless, specifically authorizes 3,224 civilian positions and, in addition, appropriates £1,199,549 for the pay of other salaries and wages. The following table gives the reference pages of the bill by which this statement can be verified:

Page.	Number specifically provided.	Additional money appropriated specifically for salaries and wages.	Page.	Number specifically provided.	Additional money appropriated specifically for salaries and wages.
10.....	3	£33,409	43.....	6	£1,199,549
11.....	6	52,228	44.....	162	
12.....	2,655	174,120	46.....	7	
13.....	6		47.....	190	
15.....		26,000	49.....	1	
21.....	181	220,353	50.....		4,000
27.....		679,005			
42.....	7		Total.....	3,224	1,199,549

In addition to all these specific appropriations for positions and salaries, there are large sums of money appropriated for specific projects like the construction of airplanes and public works buildings, which, if carried into effect otherwise than by contract, will unquestionably require the employment of additional civilians in just the same way that such work in the United States does when performed at McCook Field or the naval aircraft factory.

Actually there are 26,367 enlisted personnel in the Royal Air Force, without counting any colonels, and 13,474 enlisted personnel in the aeronautical branches of the Army and Navy of the United States, both at home and abroad. In both countries civilians are employed in addition thereto.

CONCLUSION.

From the above data it will be seen:

(1) That on January 21, 1922, the total authorized British aviation personnel, both at home and abroad, was 35,908, of which one-third, 11,969 (exclusive of naval ratings), could properly be charged to naval aviation.

(2) That on April 26 the authorized enlisted and commissioned strength for 1922 totaled 31,176, not including the air force in India and the colonial forces.

(3) That on May 6 the actual strength of the Royal Air Force, inclusive of the air force in India and colonial forces, was 29,283.

(4) That the air ministry, when pressed by our naval attaché to make a division of the Royal Air Force to show those who would be assigned to the navy, stated that in case of a separation of the Royal Air Force into army and navy wings that approximately 8,461 officers and men would be detailed to the navy. This does not include naval ratings employed on aircraft carriers, tenders, and auxiliaries.

(5) That the air force estimates specifically provides for 3,224 civilian positions in connection with the Royal Air Force, and, in addition, specifically appropriates £1,199,449 for the pay of other civilian positions, the number of which is not known. In addition to these specific appropriations for salaries and wages, appropriations are made for projects which undoubtedly require civilian labor for their completion.

Admiral MOFFETT. Here is the British estimate as published.

Assistant Secretary ROOSEVELT. It is very difficult to compare monetary appropriations, because, of course, they get different units of work for the same money. For example, the Japanese get more work for a dollar than we do.

Senator POINDEXTER. I know; that is very much to the credit of the Japanese.

Assistant Secretary ROOSEVELT. Yes; I just wanted to put that in. The British also get more for a dollar than we do.

Admiral MOFFETT. I would rather check this up and let you have it later, if you will allow me.

for POINDEXTER. Let us have it before we conclude these; and compare it with the total amount you are requesting statement here.

ral MOFFETT. I know that ours is very much less.

for POINDEXTER. What is the next item?

ral MOFFETT. We included, in this estimate as we had it ly, as a separate item \$475,000 for catapults.

INSTRUCTION OF NEW AIRCRAFT AND EQUIPMENT AND AIR STATIONS.

next amendment is, on page 49, line 7, after the semicolon at l of the line, following the figures "\$710,000" insert the g, "for new construction and procurement of aircraft and ent, \$6,537,000; for new construction, buildings, and im- ents at air stations, \$500,000."

new construction asked for, as stated, includes a total of nes of different types, and it is intended to equip vessels of t with aviation—to get them afloat. It includes the *Lang-* e new experimental aircraft carrier; the *Wright*, aviation 18 battleships, 5 light cruisers, and a number of destroyers marines and auxiliary craft.

for HALE. The House did not provide for this at all?

ral MOFFETT. No, the House in their statement, page 11, e ground that the House had no jurisdiction over new con- n of aircraft stations. The House further said in this re- estimated approximately \$7,306,525 will be needed for new and \$500,000 for construction work at aircraft stations. tant Secretary ROOSEVELT. I would just like to emphasize in there. The House says "will be needed." That is the of the House, that these things "will be needed."

ral MOFFETT. Yes.

for POINDEXTER. What total amount would that make raft, Admiral?

ral MOFFETT. You mean for new aircraft?

for POINDEXTER. No; for aeronautics.

ral MOFFETT. For the total on page 49, line 7, we would "\$7,866,950" to read "\$16,925,550."

for HALE. Which is substantially the Budget estimate?

ral MOFFETT. Yes; which is within the Budget estimate.

for NEWBERRY. In the House hearings you testified that the ount of expenditure was \$6,537,000.

ral MOFFETT. Yes; we went into detail. We have a total e here which I could put into the hearings, if you wish. We to it ship by ship, and gave the cost of each plane and the he engines.

for NEWBERRY. Will you put that statement in the record?

ral MOFFETT. I will furnish this detailed estimate to the tee.

for NEWBERRY. Does that include new buildings?

ral MOFFETT. We have a statement for the new buildings. e cut the amount asked for new buildings to \$500,000. Not case, but I think in three or four cases that amount is for . One hundred and fifty thou and dollars for hangar, apron, way at Pearl Harbor; \$5 la ling field

for the land type of planes at Pensacola; \$150,000 for hangar and storehouse at San Diego; \$12,000 for a magazine at San Diego; \$50,000 for a storehouse and hangar at Anacostia; \$80,000 for a hangar at Quantico; making a total of \$500,000 in all. As a matter of fact, we really ought to ask for a great deal more than that. We need a great deal more. Our buildings are getting very bad and are falling down, and we need new construction in many places; but we have not even asked for it, owing to the necessity of economy; so that we have asked for \$500,000 to put up some things that have direct influence on flying and the saving of lives, getting in the air, and the amount we have asked for here is something that we feel there is a real necessity and urgent need for.

For instance, at Anacostia we had planes out in the snow all winter, and we could not put up a hangar. Planes are out in the open air there now, and we have asked for what I think is a very modest amount.

SALARIES, NAVY DEPARTMENT.

DRAFTSMEN AND OTHER TECHNICAL SERVICES.

The only other amendment is on the top of page 50, in line 10. This is a comparatively small increase in the amount, about \$9,500. We have asked under the item "For the services of draftsmen and other technical services as the Secretary of the Navy may deem necessary, to be employed only in the Bureau of Aeronautics to carry into effect the appropriation 'Aviation, Navy.'" That was not raised by the House because the amount in the Budget had been \$65,000, and through inadvertence a letter written by the Secretary which went through the regular channels, was not received by the House in time. We asked for an increase of that item from \$65,000 to \$74,449.40. Although it is a small amount, it is of very great importance to aviation, and the bureau because our ability to design and get planes under construction, in the air, depends on draftsmen, primarily. We must have draftsmen or we can not do the work. The work in the past has been hampered, and the speed with which we could get planes in the air has been much lessened, by lack of draftsmen. Figuring on the amount of people that we could employ, the draftsmen, the number has been limited, and has been quite small. We want in the future to get a plane out as soon as we can, and though the amount here seems small, it is a matter of great importance to the bureau.

PURCHASE OF SITES OF EXISTING NAVAL AVIATION STATIONS.

There is one other item I would like to speak about, and that is, at various stations, Chatham, Lakehurst, Quantico, and Galveston, the land has never been acquired by the Government. The amount involved for the purchase of this land is only \$76,000. The proposal in taking this land over would be to take it over by the Navy Department and to pay for it out of aviation.

GALVESTON, TEXAS, AIR STATION.

The position at Galveston, the proposed amendment would be to use the money that we would get from the sale at Galveston to reverse the purchase, which is \$13,000.

CHATHAM, MASS., AIR STATION.

We have at Chatham a station on which over \$1,000,000 was spent, and the purchase of that land would cost \$41,000.

At Galveston the land was formed by dredging, and the estimated cost was \$13,000, to purchase. I think it is now considered to be worth over \$200,000.

LAKEHURST, N. J., AIR STATION.

At Lakehurst, N. J., there are 1,500 acres that can be purchased for \$15,000. On that land we have spent a good deal of money.

QUANTICO, VA., AIR STATION.

At Quantico we have 200 acres, which is a model flying station. The cost was \$20,000 and I have the amendment covering all of them and if you wish me to read it I can do so. It reads as follows:

Provided further, That the Secretary of the Navy be, and is hereby, authorized to use and from the moneys hereinbefore in this section appropriated a sum not in excess of \$18,000 for acquiring the site of the Naval Air Station at Chatham, Massachusetts; a sum not in excess of \$13,000 for acquiring the site of the naval air station, Galveston, Texas; a sum not in excess of \$18,000 for acquiring the site of the naval air station, Lakehurst, New Jersey, and right of way for railroad spur track appurtenant thereto; a sum not in excess of \$20,000 for acquiring the site of the Marine Corps flying station at Reid, Quantico, Virginia: *Provided*, That the Secretary of the Navy be, and is hereby, authorized, in his discretion, to sell the site of the naval air station, Galveston, Texas, with the improvements thereon, upon such terms as he may deem proper: *Provided further*, That \$13,000 of the proceeds of such sale shall be deposited to the credit of the appropriation from which the purchase price of the land is defrayed.

The Galveston site we do not want to use, but the Government has spent all that money on it, and as a matter of fact we can make a good deal of money by selling it.

Senator POINDEXTER. Do you want to acquire that site at Galveston?

Admiral MOFFETT. No, sir.

Senator POINDEXTER. You will abandon that site?

Admiral MOFFETT. Yes; and the Army has been asked if they need it and they say they do not.

PROPOSED NAVAL AVIATION STATION AT SAND POINT, WASHINGTON.

Senator POINDEXTER. Do you approve of this proposed site at Sand Point, Puget Sound?

Admiral MOFFETT. Yes; and I have looked into it a good deal, and think if trouble occurred in the Pacific, probably the first place we would go for to develop and use would be Sand Point, because we have only one station in the Pacific and that is San Diego; and in case of any warlike activities we would undoubtedly need that station and need it very quickly; not only need it for training, drilling and assembling, but it would be a place where we could ship planes

and handle them for further use on board ship. I can confirm Admiral Gregory says. The site at Sand Point is the only one. The ones proposed in other places, like Camp Lewis, are not practicable. Camp Lewis is not accessible for sea planes. You not get to those places. Camp Lewis would make a very fine lighter than air station for both Army and Navy.

Sand Point has the merit of being the nearest site to the navy yard. There is no site near the navy yard, where you could have a landing station. The land is not level, and would not be made level without a great deal of expense. Also, the air conditions for landings at navy yard are impracticable. There is not room and the air conditions would be very bad owing to the hilly country in the neighborhood.

The transportation to Sand Point, which is near the navy yard, is good. It is not away out in an inaccessible wilderness where nobody could get to it and where supplies would be gotten at great expense. It is a place where you could get workmen. I have no hesitation in saying after investigation that it is by far the best available site. It is right where we want it in case of trouble there. It is right at Puget Sound.

Senator PHIPPS. You said that Sand Point could be used to a limited extent, as I understood you.

Admiral MOFFETT. Yes; it is now about 400 acres, and we should have about 600 acres.

Senator POINDEXTER. The principal purpose of it is for heavier-than-air craft?

Admiral MOFFETT. By the use of mooring masts you could have dirigibles there. There is not as much room as we would like to have but there is enough.

Senator PHIPPS. You know of no physical obstacles in the way of using it for all purposes?

Admiral MOFFETT. No, sir; it is the best place there is out there. The aircraft people have gone into it very thoroughly and seen the whole country.

DIRIGIBLES TO BE BUILT IN GERMANY FOR THE NAVY.

Senator POINDEXTER. What is the status of negotiation with Germany for taking over a dirigible and charging it to what we owe us upon some account?

Admiral MOFFETT. The present status is that the Germans destroyed the rigid that they had, and they were told that they would have to replace those that they destroyed, in a similar way to what they had to do with regard to ships that they destroyed, and it was decided that we were entitled to a certain proportion of those destroyed. After negotiation and discussion it was decided that we were entitled to a ship of, roughly, 70,000 cubic meters' capacity. That they finally agreed to, and then the question of paying for it came up. That question has not been finally determined, but it has been practically settled, so that we can get a rigid—that is, it can be built—with every recent up-to-date device, with the improvements that the Germans know about rigid, and the negotiations are very nearly completed. They are being handled, of course, by the State Department. We regard the matter as entirely

led that we will get the ship, and we hope that we will have it in a year.

Senator POINDEXTER. What is the status of the work on the rigid at Lakehurst—what is the number of it?

Admiral MOFFETT. The *ZR-1*. The one from Germany will be the *-3*.

Senator POINDEXTER. What is the status of that?

DIRIGIBLES UNDER CONSTRUCTION BY THE NAVY.

Admiral MOFFETT. The "*Z*" stands for lighter than air and the "*R*" stands for rigid. The *ZR-1* we have spent \$1,500,000 on under previous appropriations. That amount has been spent in materials.

The ship will be built of material which has been developed in this country. We have spent \$1,500,000 and we have in this bill \$400,000, which we think will complete the ship by next June.

Senator POINDEXTER. What is the approximate percentage of completion of that ship?

Admiral MOFFETT. It is rather hard to say. The frames have been partly erected at Lakehurst. If you went by the time that has been taken, she ought to be 75 per cent complete. I should say that 50 per cent of the work has been done. The frames are being fabricated at the factory at the navy yard in Philadelphia, and transported to Lakehurst. The gas bags have, some of them, been constructed, and the material has been constructed, the engines and the cars, and we have helium gas. If we had the ship, we could fill her with helium now. We expect to fill her by next June, and we expect to demonstrate with the money that has been appropriated at Lakehurst for this ship, to find out whether rigid air ships are practical commercially or in any other way. We have mooring posts at Lakehurst, and will have them elsewhere across the country, and we have been trying to keep account of what it costs, so as to ascertain whether these rigids are practicable from a war standpoint, and also from a commercial standpoint—especially the latter.

USE OF HELIUM GAS IN LIGHTER-THAN-AIR CRAFT.

Senator POINDEXTER. What is the conclusion of the department to the use of helium instead of hydrogen gas?

Admiral MOFFETT. The present inclination is to use helium as much as possible, not to use the other if we can avoid it.

Senator POINDEXTER. What is the present prospect of your being able to avoid it?

Admiral MOFFETT. Under this bill we are expecting to use \$400,000 of our maintenance fund for helium, and we expect, if we get an appropriation to go ahead on that. The Army got \$400,000. They are required to spend \$400,000 for it now. That makes \$800,000, and that should keep the factory going the greater part of the year.

Senator POINDEXTER. Where is that factory?

Admiral MOFFETT. At Fort Worth, Tex.

Senator POINDEXTER. Operated by whom?

Admiral MOFFETT. There is a board composed of Army officers—the helium board, it is called—and they superintend and supervise

the work, and we have a naval officer with assistants at Fort Worth, and he actually supervises the operation of the factory. The factory is really operated jointed by the Army and Navy. The Army got \$250,000 last year for helium, and we got \$250,000. The helium board wanted to run on a production basis, to see how cheap they could make it, so we let them run on production up to the 1st of November and then shut down. So far as that goes, we will have the helium for the rigid airships.

Senator POINDEXTER. You do not use helium in all of your lighter-than-air craft?

Admiral MOFFETT. No; we have not used it, except that we brought some of it to Hampton Roads and used it in a 180,000-cubic foot airship, the *C-7*, to try it out. That ship made a flight from Hampton Roads to Washington and return, and it was very satisfactory, and we found that the diffusion and the valve leakage was less with the helium than it had been with hydrogen, although the lifting qualities of helium are less than those of hydrogen gas. The cost of helium is greater than that of hydrogen, partly because the Government in doing the work has not been able to use the by-products. We think that the cost can be cut down to a quarter of what it is now.

Senator HALE. What are you using it in now?

Admiral MOFFETT. We expect to use it in these smaller rigid and for dirigibles that we have. We have only the smaller dirigibles now, about 180,000 cubic feet. Those are the only ones that we have, and the only ones we are using it in. We are still using hydrogen on flight balloons, etc. If it was not for the matter of cost, I would rather see helium in all of them.

Senator HALE. Will you have enough in this appropriation this year?

Admiral MOFFETT. I think we will, for this year. We have cut everything down.

Senator HALE. Helium is very much safer than hydrogen?

Admiral MOFFETT. It is perfectly safe. You can not ignite it and it will not explode.

Senator PHIPPS. How many of this type of airships have you?

Admiral MOFFETT. Ten, only one of which is in commission. This last year lighter-than-air has been very inactive, owing to the fact that we had to economize. We have cut to the bone. In aviation we have not spent any more money than we could possibly help. We have told the stations when the money ran out to stop operations and we have been able sometimes to squeeze out a little bit more and go ahead again.

I have prepared a written statement here that is too long for me to read, but which describes more in detail what we have done in aviation this last year, and I would like to leave that with you for the record.

If there is any doubt about the necessity of this money for aircraft, I could say a great deal more on aircraft. It is vital not only for aviation but for the Navy. We have now aviation on only one of our craft. I think if trouble occurred there would be so much demand for aviation that the Navy would not put to sea without it.

we are trying to do is to get aviation afloat. I think every ship that goes to sea will have to carry aviation on deck, and we must have it on our ships of all types as fast as we can get it.

or POINDEXTER. Would you not be at a very great handicap, actively, without airplanes in the fleet?

ral MOFFETT. We would be at a very great disadvantage, and all the personnel could do the fleet would be in great danger if an enemy that had the aircraft he should have. The appropriation for equipping the fleet with aircraft is requested to remedy this condition.

or POINDEXTER. Any other naval power would be, in all likelihood, equipped with it?

ral MOFFETT. Yes, sir; the great powers are very much better equipped than we are, and they are doing all they can to get it as fast as they can.

urse, so far as the powers in Europe are concerned, they are in a more delicate situation than we are, because with them it would be with us if we were at war with a foreign country where timore was the foreign country. But we are only 30 hours, from Europe and from other places.

AIRPLANE CARRIERS.

or POINDEXTER. Have you considered the question as to whether or not it would require new legislation or change the existing law to change the type of a ship that has been authorized to be constructed, as long as you remain within the cost and tonnage—say, change of two battle cruisers to airplane carriers? It is generally accepted that it requires additional legislation. Have you considered that question at all, or have you had it investigated?

ant Secretary ROOSEVELT. I have investigated it personally, and our legal department advise us that they believe it would require a change in the existing law.

or POINDEXTER. I notice that in the House bill the new construction is applicable to the diversion of two cruisers to airplane carriers, subject to the enactment of the necessary authorizing legislation.

ant Secretary ROOSEVELT. Legislation on that is contained in the appropriation bill, which is up before the House, and will come up for consideration.

or POINDEXTER. How much money do you estimate will be required out of that fund for the two airplane carriers?

ral MOFFETT. We asked for airplanes to go with those carriers. The proposed law says "necessary aircraft and carriers." Our real estimate was about seven million. We reduced that on present estimates.

We allowed a reduction in it because we hoped, in making a rough order, ordering so many, that the price would come down. We asked for \$5,133,000. But I would like to say that that is a long way off, some time off, and what we have asked here is for the present fleet.

or POINDEXTER. Yes.

Admiral MOFFETT. And from what I am told there will much left for us in that, when they begin to divide that money is that right?

Assistant Secretary ROOSEVELT. On the construction of carriers?

Admiral MOFFETT. Yes; there will be very little left for us.

Senator NEWBERRY. To clear up a matter that appears in House hearings with reference to the purchase of a rigid machine, it was testified there that we would hold the machine if the plans would be destroyed. I presume that must be an error.

Admiral MOFFETT. I have not heard of any plans being destroyed.

Senator NEWBERRY. Of course, if you get the machine you destroy the plans.

Admiral MOFFETT. There is no such proviso that I have heard of.

Commander GRIFFIN. It is the German plant instead of the American that is to be destroyed.

Admiral MOFFETT. The Allies wish to destroy the hangar in which this rigid is being constructed.

COST OF REPAIR AND OVERHAULING OF AIRPLANES.

Senator NEWBERRY. I wanted to ask you about pages 48 and 49 of the bill. There are two items there on which I wish you tell me what your estimate is for the repair of airplanes and overhauling of planes, in your detailed estimates. What amount that you had estimated would be required for those two items?

Admiral MOFFETT. On what page is that?

Senator NEWBERRY. It is at the bottom of page 49, in the item in which you asked \$7,093,000. How much is it estimated to cost, and how much overhauling of planes?

Admiral MOFFETT. I have detailed, under maintenance and repair of aircraft and fleet activities, and so on—I have an estimate on the different activities of the fleet and those at different stations, but I have not got it divided according to the work done on the planes. That is done at the stations, where the planes happen to be operating, and also at the aircraft factory, so that it will take us a little time to get that.

Senator NEWBERRY. It was asked for before, and it does not appear in the hearings. I think it is necessary to know, if \$7,000,000, how much would be required for repair of airplanes and how much for the overhauling of the planes. That is a very large item.

Admiral MOFFETT. I can get that. I will find out and give it to you. (See Table B.)

TABLE B.

1 year for which accounting is complete is the fiscal year ending June at year the cost of repairs to aircraft and the cost of operating air-wn below.

repairs and operation of aircraft, fiscal year ending June 30, 1921.

	Yards and Docks.	Naviga- tion.	Construction and Repair.	Engineering.	Supplies and Accounts.	Total.
civilian				\$17.92		\$17.92
ions to			\$12,909.55	43,134.29	\$129.94	56,173.78
vey or	\$2,462.17	\$34.36	46.00		134.36	2,676.89
	150.00					150.00
8.	3,909.17	8,054.11	415,740.42	174,139.90	24,270.66	626,114.26
of air-	10,914.19	48.00	13,993.87	20,499.91	1,179.30	46,635.27
ellation	594.14	2,591.81	773,113.10	811,118.72	510.46	1,587,928.23
ting ex-	70,436.93	8,496.74	363,320.22	931,381.74	23,280.11	1,396,915.74
			4,452.19	2,990.87		7,443.06
	179,361.63	5,654.66	122,898.53	131,603.51	4,030.10	443,548.43
	267,828.23	24,879.68	1,706,473.88	2,114,886.86	53,534.93	4,167,603.58

enses are paid from the operation and maintenance sub-der discussion, and in addition all expenses of main-ons. The entire expenses chargeable to this subhead the following table:

der appropriation "Aviation, Navy," during fiscal year 1921 for main-yards and stations, repairs and operating expenses of aircraft, equipage, c surplus.

	Yards and Docks allot- ment.	Naviga- tion allot- ment.	Construction and Repair allotment.	Engineering allotment.	Supplies and Ac- counts al- lotment.	Total.
ustrial	\$51,572.50	\$114.44	\$896,370.65	\$293,187.54	\$195,245.01	\$1,235,790.14
ilitary						
attend- aneous onsum-						
em	4,755.00			2,864.69	48,884.29	55,504.98
porta-	55,645.20		247.35	7,852.88	417.43	64,172.86
	16,632.17		3.87	1,496.58	490.07	18,622.69
	7,485.16	935.13	1,133.73	8,816.29	12,784.35	31,155.66
	21,950.15	2,242.98	14,445.66	24,173.78	1.64	62,814.21
	53.25			2.73		55.98
	122.44	27,577.66	2,235.97	35,806.89		65,742.96
ns.			.80	28.70		29.50
is.	327,195.23	21,220.35	82,411.99	434,603.49	5,815.20	871,245.26
	433,840.60	51,976.12	100,479.37	515,656.03	68,392.98	1,170,345.10
ities—	1,137.97					1,137.97
	39,659.89		18,658.33	31,938.12	2,786.82	93,053.16
	32,262.88		9,028.22	14,131.38	288.24	55,710.72
				103.00		103.00
	73,060.74		27,696.55	46,172.50	3,075.06	150,004.85

Expenditures under appropriation "Aviation, Navy," during fiscal year 1921 for maintenance of Navy yards and stations, repairs and operating expenses of aircraft, equipment, and consumable supplies—Continued.

	Yards and Docks al- lotment.	Naviea- tion allot- ment.	Construction and Repair allotment.	Engineering allotment.	Supplies and Ac- counts al- lotment.	Total.
Maintenance of military stations—Continued.						
Land and appurte- nance (repairs and attendance)—						
Land transporta- tion (tracks).....	16,928.17			.80		16,929.97
Power plant (dis- tributing sys- tems).....	11,085.89			13,334.80		24,420.69
Grounds.....	157,043.22		3.41	6,420.70		163,467.33
Water front.....	3,783.55		196.00			3,979.55
Communications.....	7,921.31	98.20		217.61		8,237.12
Fire protection.....	10,681.21		16.15	143.26		10,840.62
Total.....	207,443.35	98.20	205.56	20,117.17		227,864.28
Buildings and struc- tures (repairs)—						
Supply system (storehouses, etc.)	2,418.20			32.91	1,498.83	3,949.94
Land transporta- tion (sheds, stables, etc.).....	1,098.91			235.49		1,334.40
Power plant.....	3,818.91			209.65		4,028.56
Offices.....	5,180.81			2,771.76		7,952.57
Quarters.....	57,632.87		16.46	3,532.91		61,182.24
Shops.....	10,819.10	46.70	5,058.65	5,664.23		21,538.68
Hospitals and dis- pensaries.....	349.68			36.73		386.41
Miscellaneous (in- cluding schools).....	67,736.13	264.17	785.94	526.81		69,313.05
Total.....	149,064.61	310.87	5,861.05	13,040.49	1,498.83	169,775.85
Miscellaneous equip- ment (repairs, re- placements, and ad- ditions to plant)—						
Supply system.....	56.69		112.52		194.90	364.11
Land transporta- tion.....	1,326.12			1,183.82		2,509.94
Power plant.....	17.28			1,842.58		1,859.86
Offices.....	13,562.90	1,203.57	102.85	145.60	332.77	15,247.69
Quarters.....	18,254.25		32.88	2.29		18,289.42
Shops.....	5,471.72	54.68	5,806.57	11,618.22		22,951.19
Fuel plants.....				39.00	1.48	40.48
Hospitals and dis- pensaries.....	10.88			59.43		70.31
Schools.....	71.47	9,822.09	26,651.12	24,229.16		60,773.84
Radio stations.....		118.80	3.81	91.93		214.54
Miscellaneous.....	8,324.45	58,269.61	28,179.25	54,643.16	1,642.90	151,059.37
Total.....	47,095.76	69,468.65	60,889.00	93,855.19	2,172.05	273,481.65
Plant appliances (re- pairs)—						
Supply system.....			26.85			26.85
Land transporta- tion (rolling stock and vehicles).....	63,117.28		22.73	69.56	2.40	63,211.97
Power plant.....	1,489.47		36.94	2,064.07		3,590.48
Offices.....	23.43				865.93	889.36
Shops.....	4.66	1.73	577.62	2,026.96		2,610.97
Floating property.....	1,216.14		524.26	2,753.86		4,494.26
Fuel plant.....	943.12			7.75		950.87
Schools.....		6,246.70		3,691.46		9,938.16
Radio stations.....			2.43	17.42		19.85
Commensary stores.....			4.53			4.53
Miscellaneous.....	13,250.74		635.27	561.70		14,447.71
Total.....	80,044.84	6,248.43	1,830.63	11,192.78	868.33	100,185.01

Expenditures under appropriation "Aviation, Navy," during fiscal year 1921 for maintenance of Navy yards and stations, repairs and operating expenses of aircraft, equipage, and consumable supplies—Continued.

	Yards and Docks allotment.	Navigation allotment.	Construction and Repair allotment.	Engineering allotment.	Supplies and Accounts allotment.	Total.
Maintenance of military stations—Continued.						
Machinery and machine tools (repairs)—						
Power plant.....	2,344.52			121.16		2,465.68
Shops.....			3,325.72	10,092.75		13,418.47
Schools.....				351.58		351.58
Miscellaneous.....	25.00			9,245.23		9,270.23
Total.....	2,369.52		3,325.72	19,810.72		25,505.96
Portable power tools (repairs, replacements, and additions to plant)—						
Shops.....	397.14		366.11	937.74		1,700.99
Schools.....				628.66		628.66
Miscellaneous.....				22.00		22.00
Total.....	397.14		366.11	1,588.40		2,351.65
Loose and hand tools (repairs, replacements, and additions to plant)—						
Supply system.....					49.09	49.09
Land transportation.....	93.23		109.08			202.31
Power plant.....			3.06	90.46		93.52
Shops.....	4,067.97	9.29	2,645.20	35,681.51		42,403.97
Dry docks.....			206.83			206.83
Schools.....			450.90	572.12		1,023.02
Miscellaneous.....	115.17	6.12	3.17	58.67		183.13
Total.....	4,276.37	15.41	3,478.24	36,402.76	49.09	44,221.87
Supervision, wages of foremen, quartermen, and leading men.....	26,957.42		16,359.37	12,650.46		55,967.25
Total military stations.....	1,024,540.45	128,117.68	220,491.60	770,456.50	76,056.34	2,219,662.57
Total, industrial and military stations.....	1,076,112.95	128,532.12	916,862.25	1,063,644.04	271,301.35	3,456,452.71
Operation and maintenance of aircraft:						
Transportation of civilian employees.....				17.92		17.92
Inspection offices.....			12,909.55	43,134.29	129.94	56,173.78
Repairs and alterations to equipage.....	2,452.17	34.36	46.00		134.36	2,676.89
Recruiting offices.....	150.00					150.00
Loss by missing survey or appraisal survey.....	3,909.17	8,054.11	415,740.42	174,139.90	24,270.66	626,114.26
Advance base outfits.....	10,914.19	48.00	13,983.87	20,499.91	1,179.30	46,635.27
Repairs to aircraft.....	594.14	2,591.81	773,113.10	811,118.72	510.46	1,587,928.23
Operating expenses of aircraft.....	70,436.93	8,496.74	363,320.22	931,381.74	23,280.11	1,396,915.74
Losses due to cancellation of contracts.....			4,452.19	2,990.67		7,443.06
Miscellaneous operating expense.....	179,361.63	5,654.66	122,898.53	131,603.51	4,030.10	443,548.43
	267,828.23	24,879.68	1,706,473.88	2,114,886.86	53,534.93	4,167,603.58
Consumable supplies.....	86,230.59	6,160.22	77,130.38	247,482.97	849.07	417,853.23
Grand total.....	1,430,171.77	159,572.02	2,700,466.51	3,426,013.67	325,685.35	8,041,909.52

this total of \$8,041,909.52, only part, \$6,395.983, was a charge against the 1921 appropriation, the remaining cost being made up of material purchased previously used during 1921. This was chiefly surplus war stock.

In 1923 it is expected that the total cost of maintenance will be slightly less than in 1921, as the economy effected by closing stations should more than offset the added cost of increased fleet aviation. However, in 1923 there will be little surplus ^{planes} available, as this stock is becoming obsolete and the stocks most in demand are becoming depleted, so that a much larger percentage of the total cost will be a charge against the 1923 appropriations. As this total cost in 1921 was \$8,041,909.52, and the charge against the appropriation \$6,395,983, the estimate of the department of \$6,613,100 in 1923 is seen to be very low. To this must be added \$475,000 for catapults, a development not in existence in 1921, making a total for maintenance and operations in 1923, \$7,093,100.

NUMBER OF AIRPLANES ON HAND.

Senator NEWBERRY. I would like also to know, so as to get an idea of the construction of planes, how many planes you had on hand on the 1st of January, 1921, how many on the 1st of January, 1922, and the number acquired during the calendar year.

Admiral MOFFETT. I think I can give you that, right now. I had on hand on the 1st of January, 1921, 1,316 planes, and I have now, that we consider serviceable—

Senator NEWBERRY. No; I mean on January 1, 1922, now.

Admiral MOFFETT. I will have to correct that. I can tell you we have now serviceable of the different types. We had on January 1 a total number of planes—that is, those that had not been as yet scrapped, including airships, 1,316 planes. Of these 614 are serviceable, as shown in the following table:

TABLE "C."

Serviceable aircraft as of January 1, 1922.

HEAVIER-THAN-AIR.

Operations type:

F-5-L, twin-engine patrol seaplanes.....	14
P. T., single-engine torpedo planes.....	4
M. T. and M. B. T., twin-engine torpedo planes.....	1
DH-4B, spotting planes (landing gear).....	1
18 T., two-seater fighting planes.....	1
VE-7-SF., single-seater fighting planes.....	4

Total service types..... 35

Training type:

R-6-L, training torpedo planes.....	2
VE-7, training fighting planes.....	4
VE-7S, radio-training planes.....	1
VE-7GF, gunnery training planes.....	1
N-9, primary training seaplanes.....	15
JN, primary training land planes.....	3

Total training types..... 23

LIGHTER-THAN-AIR.

Operations type:

Kite balloons.....	8
B type airships, single engine.....	3
C type airships, twin engine.....	4

Total service types..... 15

Training type: Free balloons..... 10

Total, all types..... 61

ing the lighter than air, many of those we consider obsolete—obsolete types that we consider of no value at all, or practically

We have now serviceable, that we consider serviceable—

ator NEWBERRY. Pardon me, I want just to get the information. How many did you acquire during the year?

airal MOFFETT. I will have to get that for you. We can not ou that right now.

ator NEWBERRY. Will you put in the record a statement of many were acquired in any way, shape or manner, during the ar year? Then we will know exactly how many we lost.

TABLE D.

r of planes on hand Jan. 1, 1921.....	1,316
r of planes on hand Jan. 1, 1922.....	1,316
-than-air planes acquired, calendar year 1921.....	470
-than-aircraft acquired, calendar year 1921.....	6

airal MOFFETT. Not constantly, but very frequently, we de-stricken from the list of the Navy planes that we consider te. We have now over 300 planes that we consider service- and we have about 230 that we use for training that would not d in time of war.

ator NEWBERRY. Then, you have no estimate of the cost of s, or the cost of overhauling planes?

airal MOFFETT. Yes, sir.

ator NEWBERRY. Will you put that in the record?

airal MOFFETT. Yes, sir; that appears in the House hearings.

ator NEWBERRY. The estimate for next year is in the House gs; but they asked you what that would be in the past year, can not find it.

airal MOFFETT. We have a total that should be in the hear- howing the number of planes we had on hand and showing ve need, and giving the details of the cost.

ator NEWBERRY That is exactly what I want to find out— he wear and tear on your planes was; and I think with those questions answered I can get it. And the next question was, was the cost of repairing and overhauling of planes for the scal year?

airal MOFFETT. That will take a little while to get, because e the planes are repaired at places like San Diego and all l.

ator NEWBERRY. It will take us a little while to prepare this, that you can get it to us in time. (See Table B, preceding.)

SUPPLY OF HELIUM ON HAND.

egard to helium, the House hearings show that you have 1,250,000 feet.

airal MOFFETT. We have 2,400,000 cubic feet.

ator NEWBERRY. You have half of that and the Army has half?

airal MOFFETT. We are entitled to half of it.

ator NEWBERRY. You have 1,200,000 feet?

airal MOFFETT. Yes.

ator NEWBERRY. Is that amount enough to fill the ship that ought up here?

Admiral MOFFETT. We have decided to use it where it is most, but we have not actually divided it yet, and I have no idea that if we had a rigid we would get what we needed. If we did not make any more this year we would undoubtedly use that. The army will let us have it.

PERCENTAGE OF LOSS OF HELIUM AND HYDROGEN BY LEAKAGE.

Senator NEWBERRY. What you find the percentage of leakage?

Admiral MOFFETT. We had practically no leakage on the *Roma* made between here and Hampton Roads.

Senator NEWBERRY. Something was said about the leakage of the army; about 1 per cent a day.

Admiral MOFFETT. That was hydrogen. The leakage is 30 per cent a month. That is what happens with hydrogen. We do not know what the rate is with helium, because we have not used it long enough. We are trying by improvements in gas ovens in various ways to reduce that as much as possible.

Senator NEWBERRY. My recollection was that they told the *Roma* saying that the reason they did not use the helium was because the leakage would be so high, 1 per cent a day, that they could not afford it.

Admiral MOFFETT. I think I recall what that was. The question asked was, why they did not use it, and I think the real reason was that they did not use it because they wanted to economize on helium gas costs so much more that they did not care to use it for that reason.

Senator NEWBERRY. Here is a statement as to the leakage of the *Roma* that was a mistake, or they had a very bad bag. It is all no difference. I do not find that place in the House.

Admiral MOFFETT. I was asked why they did not use it. I stated that it was a matter under the Army, and I can give you my opinion as to what I would have done in the same case. I would not have used it on account of economy; it is so much, and we would have used hydrogen, for that reason.

Senator NEWBERRY. The Secretary asked why they did not use helium in the *Roma*. The answer was that there was a considerable amount of leakage from the gas bag; that it leaked at 1 per cent a day—30 per cent a month. You were told that about hydrogen then?

Admiral MOFFETT. Yes. We do not know how much the leakage would be of helium, yet. We think it would be very small.

Senator PAGE. Is that all?

Admiral MOFFETT. That is all.

SERVICES OF DRAFTSMEN.

Senator POINDEXTER. Just one question I want to ask for an increase from \$65,000 to \$74,000 for draftsman's service. I did not get very clear the idea for the increase.

Admiral MOFFETT. The reason for that increase is the service of draftsmen and such other technical service of the Navy may deem necessary, to the Bureau of Aeronautics to carry into effect the program of the Navy.

n, Navy." The amount is very limited that we can employ in Washington, you know. We want to raise it because the number of craftsmen we have is not enough for the work. We can not employ the force that we need for work on aircraft, and it delays us in getting out the planes or getting out any improvements on planes. Many men can draft just so many planes, can get out so many planes, in a certain length of time. We can not keep up. We have a very much hampered by not having enough draftsmen.

Senator POINDEXTER. That is all.

Senator PAGE. Mr. Secretary, I suppose the next is General Lejeune?

Assistant Secretary ROOSEVELT. Yes; General Lejeune on the line Corps. Mr. Chairman, if the committee is agreeable, after General Lejeune finishes I would like to make a short statement on question of the salaries of the chief clerk of the department and chief clerks of the bureaus. Then that will finish all that we have to bring before you to-day.

Senator PAGE. How long do you think it will take for General Lejeune's statement?

Assistant Secretary ROOSEVELT. It all depends on what questions gentlemen of the committee want to ask. It might take 10 minutes for General Lejeune to make his statement.

Then the only other matter that I would like to discuss in detail to the committee is the question of the "Increase of the Navy," general items, and if it is agreeable to the committee, Secretary Lejeune would like to be here when that is being discussed. He, fortunately, has a cabinet meeting to-morrow, and if the committee finds its way clear, we would like to have that hearing on Wednesday.

Senator PAGE. That seems to be satisfactory to the members of the committee.

The statement above referred to by Admiral Moffett is here printed, (follows:)

MAY 4, 1922.

STATEMENT OF ADMIRAL MOFFETT REGARDING POST-WAR DEVELOPMENT OF NAVAL AIRCRAFT.

The naval aviation appropriations have each year contained a liberal provision for experimental and test work, and I now desire to place in the record a brief summary of what I consider to be the outstanding results from the wise policy of Congress in allocating such funds, and to indicate to the committee that the country and the art in general have been advanced by the technical progress which such appropriations have made possible. I need not draw the conclusion that results count. The results I can certainly show that the Navy Department has developed an operating technical organization that can be counted on to lead the march of progress in the opportunity.

TRANS-ATLANTIC FLIGHT.

The first post-war accomplishment of naval aeronautics was the trans-Atlantic flight of the NC-4, with which the committee is familiar. The NC-4 type of flying boat stands as the largest and most powerful flying boat which has successfully flown. Other boats have been built abroad, but so far as I know with entire lack of successful flight.

TRIPLANE—1ST.

In cooperation with the Curtiss Aeroplane & Motor Corporation, and at Navy expense, the 400-horsepower triplane (model 18-T) with a new Curtiss CD-12 engine developed and flown. The speed shown of 162 miles per hour in 1919 made it, as it is still, so far as I know, the fastest two-seater fighting plane in the world.

WORLD'S SPEED RECORD.

At Omaha in November, 1921, a Navy plane with a new Navy developed engine broke the world's speed record for a closed course. The same plane holds the American speed record for a straight course. A second Navy plane of another design holds second place for speed over a straight course. The development of engines of high power and planes of extreme aerodynamic refinement are of the greatest naval value. It is hoped that this fall new planes now building will set the speed record a notch higher.

CATAPULTS.

The Navy has designed, developed, built, and successfully tested a catapult for launching airplanes from battleships. The *Maryland* is now going to sea with the latest catapult fitted and provided with airplanes as a regular part of her equipment. In future battleships need not permit hostile bombing planes to approach. The defending combat planes will be shot into the air to drive them off.

TORPEDO PLANES.

The past year has marked the successful development by the Navy of torpedo-carrying seaplanes. Three types have been produced under Navy control and with Navy funds by contractors. One type is an unbraced monoplane of low visibility and high speed. Another is made entirely of metal. The third is a small, compact biplane with interchangeable landing gear, so that it can be used to land on a carrier or on the sea.

SHIP PLANES.

To meet the special demand of the Navy for a small combat plane of high performance and yet very compact and easily taken down for stowage, the Navy has designed, built in naval shops, and successfully flown a new plane equipped with the new Lawrence air-cooled engine developed with Navy funds for this project. The development of the combined project of a radically new type of both engine and plane was technically extremely difficult, but has proved remarkably successful.

AIRSHIPS.

The development of airships in this country was initiated by the Navy on the declaration of war by designs of nonrigid airships for submarine searching, which designs were turned over to contractors and successfully produced. The design and building of nonrigid airships has been continued, and to date six successful types have been built, each an improvement over the last.

RIGID AIRSHIPS.

The design and construction of rigid airships of the *Zeppelin* type was undertaken after the war, but first the special German materials had to be made available. The secrets of manufacture had to be learned by painstaking research and experiment on the part of the Navy. Now all special materials are available, the design work completed, and construction of the first rigid airship, the *ZR-1*, is under way at the naval air station, Lakehurst, N. J.

DURALUMIN.

Duralumin is the German alloy of aluminum necessary to build *Zeppelins*. The development of American-made duralumin was initiated and financed by the Navy. The result is now successful, and two large concerns are making it for the Navy, but also commercially for the aeronautical, electrical, and other trades in general.

METAL AIRPLANE CONSTRUCTION.

The development of American-made duralumin by and for the Navy has made it possible for airplane builders to make use of this material in airplane construction. One Navy contractor is to-day flying for test a torpedo plane built all of duralumin, the first all-metal airplane built by an American constructor. Another Navy contractor is building all-metal spotting planes for the fleet, and others are using metal for a large part of their construction.

FUEL INJECTION ENGINES.

is accepted generally by aviation authorities here and abroad, that one of the important developments in aircraft power plants is to make practicable the use of heavy oil fuels. This is to say, engines which, like the Diesel engine, will operate successfully on heavy oil for fuel, will inject the fuel directly into the engine cylinders, which will fire the charge spontaneously, thus eliminating in a large measure the fire hazard present in the use of highly volatile gasoline for fuel, and avoiding difficulties inherent in the use of carburetors, and complicated ignition devices. The only development work which has been undertaken or which has met with any success in this country for the application of these principles in aircraft engines has been initiated, fostered, and largely financed by the Navy. This has been a most difficult undertaking, but although the problem has not been completely solved, the experimental engines recently completed indicate the strong probability that the use of this type of engine in aircraft practice will be entirely practicable. The progress which has been made thus far is in advance of any other known development in this country, and is not surpassed by any known development in the world.

AIR-COOLED ENGINES.

The only air-cooled engines of American design or manufacture which have yet been developed and successfully flown have been initiated by the Navy, developed under Navy control, with Navy funds, and first flown in Navy aircraft. The latest Navy developed air-cooled engine—the Lawrence 200-horsepower J-1 engine—is superior in performance, weight per horsepower, and durability to any other known engine of comparable power which has yet been developed and successfully flown either in this country or abroad. The Navy has under way at present two entirely new experimental lines of development in air-cooled aviation engines, both of which if successful promise a material advance in the state of the art of engine building, and both of which should make for greater reliability and superior aircraft performance.

AIRSHIP ENGINES.

The only modern airship-engine development which has been successfully accomplished in this country has been accomplished under Navy control and with Navy funds. It is a fact that every American-built airship which has been flown in this country since the war has been equipped with engines which have been developed and built under Navy control and with Navy funds. There have recently been completed and thoroughly tested under Navy control, and with Navy funds, two new types of airship engines, which in performance, weight per horsepower, fuel economy, dependability, and durability are at least equal to the best engines developed in any country in the world. One of these engines develops the greatest power output per horsepower of any successful aircraft engine that has yet been developed either in this country or abroad, so far as is known.

DURABILITY OF ENGINES.

The Navy has long realized the urgent necessity for realizing a greater degree of dependability and durability in all types of aircraft power plants. The greatest obstacle which has existed, and which still exists, to the development of both commercial and military aviation has been the relatively low degree of dependability and the relatively large cost of maintenance of aircraft, and particularly of aircraft power plants. These factors have made necessary the provision of large and expensive repair establishments and of inordinately numerous and highly skilled repair maintenance personnel. The standard of durability of aircraft engines in this country and abroad has been set by the requirement that an engine must satisfactorily complete a 50-hour endurance test. In all the Navy's development work, both in new types and modifications of old types, considerations of durability, dependability, low first cost, and low cost of maintenance have always held an important place. The standard acceptance test for new types of aircraft engines has been, in this country and still is in countries abroad, a 50-hour run. An engine recently built for the Navy has just completed a test of 500 hours of running—six times as long as the usual acceptance tests. This is the first aircraft engine ever built to complete so severe a test. As the result of information gained in this test and previous unsuccessful attempts to measure up to so

and the Navy Department anticipated that a number of other engines developed abroad would be built for the Government. The Navy will successfully complete similar work.

There are also a number of other types of engines which have been developed abroad and which are now being built and tested and which can be built in large quantities in short periods and only those which the Navy Department has been out of naval appropriations:

The Liberty model, 100-horsepower water-cooled engine.

The Liberty model, 100-horsepower water-cooled engine.

The Liberty model, 100-horsepower water-cooled engine.

The Liberty model, 100-horsepower water-cooled engine.

The Liberty model, 100-horsepower water-cooled engine.

The Liberty model, 100-horsepower water-cooled engine.

The Liberty model, 100-horsepower water-cooled engine.

The Liberty model, 100-horsepower water-cooled engine.

There are also a number of other engines, and each engine mentioned is at least equal to the Liberty engine of the same size that has yet been developed in this country.

THE LIBERTY ENGINE.

The Liberty engine developed during the war was at that time the equal of any engine developed for the same type of service, and although the Liberty engine is still being built extensively in this country and in England and in France, it is rapidly becoming obsolete and will within the next few years have to be replaced entirely. A number of important modifications have been made by the Navy in this engine since the war which have greatly doubled its life and which have been very much adapted through the country.

REDUCTION GEARS.

The development of reduction gears for aircraft engines has been one of the most difficult problems which has confronted the industry in this country. At the end of the war no suitable type of reduction gear had ever been built in this country in spite of repeated efforts. Development work has been proceeding in this line under Navy control for three years, and for the past year engines fitted with reduction gears have been in successful operation in naval aircraft in every day flight service. As a result of this work an industry has been developed which can manufacture suitable reduction gears for all types of engines.

Concurrent with this development has come the problem of gearing two or more engines to one propeller, thus making possible the construction of the so-called "airplane." The Navy has developed, built, and thoroughly tested the largest aircraft power unit ever built. This unit consists of three 400-horsepower engines all driving through clutches and gears one single propeller 18 feet in diameter. This is the largest aircraft propeller ever built thus far.

The post-war record of the Navy in aircraft power plant development stands as follows:

The Navy has been responsible for the development of the only successful water-cooled engines of American manufacture that have yet been flown.

The Navy has developed every successful engine of American manufacture which has been used in lighter-than-air craft.

The Navy has developed the only reduction gears for aircraft engines that have proved successful in flight operations.

The Navy has been responsible for practically all of the development thus far accomplished toward the use of heavy oil engines in aircraft.

A Navy developed engine has recently passed the most severe duration test which has ever been completed by any aircraft engine, and Navy developed engines have proved on test to have a greater operating life between overhauls and greater dependability than any other American built engines, and are at least equal in this regard to the best engines built abroad.

The Navy has developed the largest aircraft power unit ever built, and has been first in the United States to succeed in gearing two or more aircraft engines to one propeller in a practical manner.

The Navy has to-day a thoroughly developed and proved type of engine for every class of naval aircraft service, with complete detailed production plans and specifications for each type. The design of every type is an American development and is

ally adapted to American quantity production methods and can be manufactured cheaply in large quantities in any well-equipped manufacturing plant in any country in case of emergency. And every type is, in performance, weight, reliability, dependability, and general suitability, at least equal to the best engine of the same class which has been developed in any other country in the world.

MARINE CORPS.

STATEMENT OF MAJ. GEN. JOHN A. LEJEUNE, COMMANDANT MARINE CORPS, ACCOMPANIED BY BRIG. GEN. CHARLES L. MCRAWLEY, QUARTERMASTER; LIEUT. COL. H. C. SNYDER; AND MR. WILLIAM W. TRAIL, QUARTERMASTER DEPARTMENT.

Senator PAGE. General, proceed.

General LEJEUNE. There are three or four amendments that have been proposed to the bill that the Marine Corps is especially interested in. One is the appropriation under the subhead "Provisions," of the Quartermaster's Department, on page 57.

MAINTENANCE, QUARTERMASTER'S DEPARTMENT, MARINE CORPS—PROVISIONS,
MARINE CORPS.

Senator PAGE. This is on page 57 of the bill, line 21.

Senator POINDEXTER. Do you want that amount reduced?

General LEJEUNE. We want that increased by about \$300,000. The appropriation as given there is not sufficient for the number of men for which appropriations are carried under the remaining part of the bill. The bill as reported by the House purports to carry appropriations sufficient for 19,500 men. With very careful economy and very close administration, all the other items will be sufficient, but this item will not be sufficient.

Senator HALE. That is for the regular rations?

General LEJEUNE. The Marine Corps has the same ration that the Army has. It is prescribed by law, and the quality and quantity of the components are all prescribed by law. This amount would be enough if the ration cost was 40 cents per man per diem. The amount asked for will bring it up to 45 cents, which is the amount authorized for the Navy. Through inadvertence in the House Committee, I think, they failed to put in enough money for that.

Senator HALE. It is a correction you want?

General LEJEUNE. It is a correction.

Senator HALE. What is the amount now?

General LEJEUNE. The amount is \$3,679,121, in place of the amount given there, \$3,380,947.

That will necessitate further amendments in the totals if that is allowed.

On page 61, line 18, the total for maintenance, Quartermaster Department, will have to be increased by a corresponding amount; and line 25 on the same page, the total of the Marine Corps has to be increased by the corresponding amount.

PUBLIC WORKS, BUREAU OF YARDS AND DOCKS.

PURCHASE OF ADDITIONAL LAND, MARINE BARRACKS, SAN DIEGO, CALIF.

There is another matter, under Yards and Docks, that the Marine Corps is very much interested in—public works. This is on page 48, lines 9 and 10, Marine Barracks, San Diego. I think Admiral Gregory explained the necessity of an amendment of those two lines. The amendment we want to insert provides for the purchase of a small tract of land. That land just in there—it is a V-shaped tract of land that juts into our property there—and unless it is purchased it will necessitate an increase of the cost of the water mains, sewer, and everything else necessary for the upkeep of the station, by a greater amount than the land will cost.

Senator POINDEXTER. What will the land cost?

General LEJEUNE. \$18,000 for the land was the amount estimated. When the land for the Marine Corps base was originally bought, Congressman Kettner, Congressman from San Diego, handled it, and he purposely omitted that piece because he thought that the amount asked by the owner was too great. The owner at that time wanted \$36,000. Mr. Kettner said that it was more than it was worth, so that was eliminated from the purchase of the original tract; but it has been arranged now so that we can buy it for \$18,000, which is one-half of the original price asked, which Mr. Kettner himself told me was a reasonable price.

Senator NEWBERRY. How much of that is for right of way?

General LEJEUNE. \$18,000 is for the whole tract.

Senator NEWBERRY. What portion of it is for the triangular piece?

General LEJEUNE. I think it is \$12,000 for the triangular piece and \$6,000 for the right of way.

Senator NEWBERRY. Is it owned by the same owner?

General LEJEUNE. The right of way part is to enable the railway line to go through Government property instead of through rented property. If that purchase is not made, we will have to pay a continual rent each year for the right of way for the railway line.

Senator NEWBERRY. Does not the railway own the right?

General LEJEUNE. No; this is a branch that was built to supply the barracks.

Senator NEWBERRY. The railway charges the Government for running its tracks through?

General LEJEUNE. The Government ran those tracks.

Senator NEWBERRY. Are they Government tracks?

General LEJEUNE. They are entirely for the use of building operations that are going on there, and after the building operations are completed they will be necessary, in order to run the cars down to the storehouses for the supply of the Marine Barracks.

Senator NEWBERRY. The Government built that spur?

General LEJEUNE. Yes.

Senator NEWBERRY. Is the land owned by the same individual that owns the right of way?

General LEJEUNE. No; by different individuals.

Senator NEWBERRY. So that you can buy the triangular piece and square out your property without buying the right of way?

al LEJEUNE. Yes; the triangular piece is of great importance.
or NEWBERRY. What sort of lease have you of the right of way?

al LEJEUNE. Just an annual lease, the rental being paid by the Navy Docks. I do not know the amount.

or NEWBERRY. You might find out and put that in the record.

al LEJEUNE. I was mistaken. At the present time the Government is paying for the right of way. When the contract is completed the Government will either have to give it up or itself pay for the right of way.

or NEWBERRY. I wonder why the railway would not do for the Government there what it would do for a man, ordinarily, in special business? A railway will run a spur out to a man's property.

al LEJEUNE. Yes; but they have to go through this other

or POINDEXTER. There are two tracts there, are there not?

or NEWBERRY. They generally acquire the right of way, and you see why the Government should do it.

or PHIPPS. How much is there in that triangular strip of

al LEJEUNE. About four and a half acres.

or PHIPPS. Four and a half acres. That is a pretty good tract. Is there more than one tract there?

al LEJEUNE. Only one tract in addition to the right of way.

or POINDEXTER. I think there are two tracts.

al LEJEUNE. There are two tracts of land there, yes. One is a regular tract that runs down into our area, and the other is a tract for the right of way. That right of way the Bureau of the Navy Docks is more interested in than the Marine Corps is. The regular tract runs into our area.

or NEWBERRY. It looks to me as if the railway was more interested in it than anybody else.

USE OF SITE OF PRESENT MARINE CORPS AVIATION FIELD AT QUANTICO, VA.

al LEJEUNE. The other purchase that the Marine Corps is interested in is the purchase of the land for the aviation field at Quantico. About three years ago that tract was rented, and a good many improvements have been put on it, up to the amount of about a million dollars. The rental is \$1,800 per annum. That land, in condemnation proceedings, it is estimated can be bought for

We have an option for its rental which is good for 10 years, and covers seven years more to run.

It is in the interest of the Government to buy the land rather than to continue to rent it, and as to all these improvements at the end of the option we do not know what will happen. The Government will probably then resume possession of the land.

or POINDEXTER. What is the nature of that option?

al LEJEUNE. It has seven years more to run.

or NEWBERRY. It is that an option to purchase or to re-lease?

al LEJEUNE. We have an option to re-lease annually for 10 years, but no option to purchase.

Senator POINDEXTER. How much rental do you pay?

General LEJEUNE. We pay \$1,800 a year.

Senator POINDEXTER. That is not a pressing emergency.

PURCHASE OF ADDITIONAL LAND AT SAN DIEGO.

I want to ask you again about this piece of land at San Diego. I understood Admiral Gregory to say that this \$18,000 would cover the purchase of two small tracts of land.

General LEJEUNE. Yes; both tracts of land.

Senator POINDEXTER. How much would it take to purchase that one piece, that triangular piece of land?

General LEJEUNE. \$12,000. We would also have to insert the word "including not to exceed"—whatever amount the committee puts in—"for the purchase of land," and add that amount to the \$482,000. If you decided to include the whole \$18,000, it would include both. If the triangular piece alone was bought, it makes \$484,000.

AVIATION FIELD AT QUANTICO.

The project at Quantico, Senator, if I may continue as to that, and say a few words more about it, is of great importance, because it is important for us to know whether our tenure there is going to be permanent or not. Everything we do is based on that proposition. If it is only temporary, from year to year, we can not improve the place the way we would like to improve it.

Senator HALE. Is it all on leased land now?

General LEJEUNE. The aviation station is entirely on leased land. The field is connected by a bridge with the main station, and it is exceedingly important that the aviation station should continue in that locality, because there we have opportunity to train aviators in connection with field exercises of the Infantry, and our Artillery unit that we have there. They get the finest kind of training.

If the aviation field is away off by itself, the men get only the air training, the pilot training; but here they actually maneuver with troops, as they did last fall in the campaign in the Wilderness, and as we will do again this year in our summer exercises.

Senator PHIPPS. What is the area of this land you have under lease?

General LEJEUNE. Two hundred acres.

Senator PHIPPS. What can it be acquired for?

General LEJEUNE. We do not know what the owner will ask for it, but we estimate that by condemnation proceedings we can buy it for \$20,000. The reason it was not bought originally was because he wanted \$35,000 for it, which amount was considered excessive, and the department did not buy it.

Senator POINDEXTER. What amount are you asking for?

General LEJEUNE. We are asking for \$20,000, which would be no addition to the appropriation bill, as the proposed amendment provides for its being charged against amounts already provided for.

Senator NEWBERRY. How many more acres would the Marine Corps add? How much does the Government own at Quantico?

General LEJEUNE. The Government owns a large tract of land at Quantico, but there is no field in it that can be used for an aviation field.

It is a very irregular tract of land.

Senator NEWBERRY. How many acres does the Government own?

General LEJEUNE. About 5,500 acres; mostly wooded land, and hilly.

Senator NEWBERRY. How far away is this 200 acres from this land?

General LEJEUNE. It is right across the creek, connected by a levee.

Senator NEWBERRY. It is hilly on one side and flat on the other

General LEJEUNE. It runs along the Potomac River. We have a large ground at Quantico used by troops, which is not a large area for an aviation field. The aviation field is located on flat land along the river bank.

Back from the flat land the land is hilly. That is the formation of the Potomac River.

At the time this was acquired, the matter was very carefully considered, and it was decided that there was not any area inside of the Government reservation suitable for an aviation field. The main one was leased originally about April, 1917. It was not contemplated that an aviation field would be established there, and no lease was made at that time for that purpose. It was bought the following year, and there was still no movement for the location of an aviation field there. After the war, however, the aviation station moved from Miami, Fla., where it was during the war, to Quantico because of the extreme desirability of having it in an area remote to that occupied by the troops; so that they could have joint exercises.

We have there to-day a very beautiful field. All the work is done by the enlisted men; we have no civil employees there at all. All the repairs to planes, and everything that ordinarily is done by experts, is being done by the troops.

Senator POINDEXTER. Just what amendment do you propose? I say this does not involve any increase in the appropriation?

General LEJEUNE. This is one of the items proposed by Admiral Moffett in his statement. I am simply backing up Admiral Moffett's request for the committee to include the amendment. He has a proposal which included Lakehurst, Galveston, Chatham, and Quantico. I am interested in Quantico, and am urging that.

ACQUISITION OF SITE FOR RIFLE RANGE NEAR BREMERTON NAVY YARD, WASH.

There is another matter, that I would like to mention, which does interest particularly to the Marine Corps; but which we are very interested in. That is the question of a rifle range near Bremerton Navy Yard, Puget Sound. The Marine Corps has a range which is about 10 miles from the navy yard. It is not fitted for the purpose intended. The recommendation of the Secretary of the Navy for the purchase of the tract for a rifle range states that it is properly located, and the tract is large enough in area to be utilized by the rest of the entire fleet as well as the Marines.

We propose to dispose of our tract just as soon as we can get the other tract. We are keeping up our butts, and so on, just as they are to-day, but only from week to week; and we are trying to avoid spending any money on our present range, because we have been anticipating the purchase of the land for this other range. If we continue as we are now we will have to expend a considerable amount on the old range, or else abandon it. If abandoned the transportation of the men to Mare Island, Calif., for their annual target practice will be necessary.

PURCHASE OF LAND AT SAN DIEGO, CALIF., AGAIN.

I want to correct my testimony in connection with that tract of land at San Diego. I did not have the figures before me. Some one told me that the amount for the purchase of the right of way was \$6,000 and for the purchase of the V-shaped tract was \$12,000. That was a mistake. Here are the exact figures. The right of way is \$11,000 and the V-shaped tract is \$7,000.

Senator NEWBERRY. That is all right.

Senator POINDEXTER. Where does this \$18,000 come from?

General LEJEUNE. That is the total of the two.

Senator NEWBERRY. What is the acreage of the right of way?

General LEJEUNE. I do not know the acreage.

Admiral GREGORY. The right of way is about one and nine-tenths acres.

General LEJEUNE. It goes through a good many lots—it across building lots.

Senator NEWBERRY. The other tract contains about four acres?

General LEJEUNE. About 4.5 acres.

NUMBER OF ENLISTED MEN IN MARINE CORPS.

Senator HALE. How many men have you now in the Marine Corps?

General LEJEUNE. For the current year, appropriation was for made for 21,000 men.

Senator HALE. How many are you allowed by this?

General LEJEUNE. This appropriation bill allows 19,500.

Senator HALE. Then does that decrease have any effect on the efficiency of the Marine Corps?

General LEJEUNE. It will very seriously cripple the Marine Corps.

Senator HALE. It will?

General LEJEUNE. We have provided for every man in the Marine Corps a place and he has a job, and if you take off 1,500 men we simply going to give up 1,500 jobs.

Senator HALE. What was the size of the Marine Corps in 1916?

General LEJEUNE. In 1916 Congress fixed the size of the Marine Corps at 15,000 men, and provided for a further increase of 2,400 the event of an emergency arising. The situation is this, we have fallen heir to what has amounted to the semi-permanent duty of supplying garrisons in Haiti and Santo Domingo, which amounts to about 4,000 men.

Senator POINDEXTER. Do you expect those to be perm-

General LEJEUNE. I should say, semi-permanent. While we have to find the men.

Senator HALE. And the job is lasting?

General LEJEUNE. And it is lasting. We hear reports from time to time that the Marines are going to be withdrawn from Santo Domingo; but we have nothing to do with that. We have to supply at number of men for garrison duty, 4,000 men until the withdrawal is effected.

PRESENT DUTIES AND SERVICE PERFORMED BY THE MARINE CORPS.

Senator HALE. Most of your duty is now on land, is it not?

General LEJEUNE. The duties of the Marine Corps, briefly, are as follows: We have detachments on board of the capital ships of the fleet, on flagships, and some of the other cruisers. We have guards at naval stations and naval bases and ammunition depots, at home and abroad. We have a garrison for Haiti and one for Santo Domingo; one at Guam; one at Peking and one at Managua, Nicaragua; and then we have recruits under training, which takes 1,500 or 1,600 men; and we have men for administrative purposes, recruiting duty and clerical work, and so on.

Then we have our expeditionary force, which is a force trained, organized, equipped, and held in readiness for any emergency that may arise. That is the most important part of the duty of the Marine Corps, and it is practically the reason for the existence of the Marine Corps, to be in readiness when called upon by the State Department or the Navy Department; a body of well trained troops, organized and ready, for emergency use in time of peace. That does not bring up the question of time of war, at all. That same force would be in readiness for expansion in time of war, and to perform duties if called upon in emergency.

Senator HALE. How many men do you keep in that force?

General LEJEUNE. We keep that force at about 3,800 men; 3,000 on the east coast and 800 on the west coast.

Senator HALE. That is the force that would probably have to be reduced?

General LEJEUNE. That is the force that would be reduced. Now, the necessity for that force is shown by past history. The Marine Corps was increased just after the Spanish war. Prior to that we were chiefly a sea-going corps, with small detachments at navy yards. At the beginning with the Spanish War we took up this frequent expeditionary duty. Prior to that we had had it only very occasionally. In 1899 we sent a large force to the Philippines.

In 1900 we sent a large force to China, at the time of the Boxer Revolution there.

After that revolution was over, they went down to the Philippines. We had a small brigade (1,500 men) in the Philippines for 12 or 14 years.

In 1902, 1903, and 1904 we sent expeditions to Panama. In 1903-4, at the time of the insurrection in Panama and the establishment of its independent government, a brigade of marines was sent there.

In 1906 we sent a brigade to Cuba at the time of the insurrection in Cuba and kept a regiment there for about two years and a half, fighting with the army.

In 1909-10 we sent a brigade to Nicaragua. It did not land, but remained on board the transports in the harbor for four months; that brigade did the work just by its presence.

In 1911, at the time of the Madero revolution, we sent a brigade to Guantanamo, Cuba to be in readiness for service in Mexico. It did not go to Mexico, but came back to the United States after several months.

In 1912 there was an insurrection in eastern Cuba, and we had a brigade down there guarding sugar plantations and copper and iron mines, to keep them from being destroyed by the insurgents, while the Cuban forces put down the insurrection.

In 1913 we had a brigade in Guantanamo, Cuba, because of the Mexican embroglio. It did not proceed to Mexico.

In 1913, again, we had a brigade in Nicaragua, which put down the revolution and pacified the country, and we still have a small force there.

In 1914 we landed a brigade at Vera Cruz at the time of the occupation of that city, and served with the Army for seven months as a part of the army of occupation.

In 1913, 2,000 men were landed in Haiti and remained there until May, 1916, when half of that force was sent to Santo Domingo, a regiment of marines, all that we had left in this country, to Santo Domingo from San Diego, Calif. That force has remained in Haiti and Santo Domingo continuously from that day to this.

In 1917 we had a regiment in eastern Cuba during another insurrection.

In 1917 and 1918 the Fourth and Fifth Brigades and 12 replacement battalions, about 28,000 men, served in France.

Last winter we had the guarding of the mails.

In 1918 we had a brigade protecting the sugar plantations in Tampico and a brigade at Galveston, Tex., ready to go to the oil fields.

So you see there has been hardly any time since the Spanish-American War that this expeditionary force has not had to be in readiness, not actually been in use; so that if it should be disbanded, the Corps could not function.

Senator HALE. Did the expeditionary force have to do with guarding of the mails?

Gen. LEJEUNE. It did the guarding of the mails. If that had been made permanent we would not have had any expeditionary force.

Senator HALE. Can you file a statement showing the numbers of men in the various places that have been occupied by them?

Gen. LEJEUNE. Yes; I have it here.

Senator PHIPPS. Are you through?

Senator HALE. Temporarily.

Senator PHIPPS. How many men have you assigned to aviation?

General LEJEUNE. We have 750 men assigned to aviation.

Senator PHIPPS. That is an added duty, since 1916?

General LEJEUNE. Yes; and the number ought to be a good deal larger. We have men in Haiti to-day in aviation. The roads are scattered all over the country. The roads are poor, and are kept up by aviation. In Santo Domingo—

Senator PHIPPS. How many should you have in aviation?

General LEJEUNE. At least double the number.

Senator PHIPPS. You think should have 1,500?

General LEJEUNE. Yes.

Senator NEWBERRY. What effect will this reduction have on your detachments on battleships?

General LEJEUNE. It will have no effect, because you must keep them up. We have been told by the Office of Naval Operations that they do not anticipate that there will be any reduction in the number of marines afloat next year.

Senator HALE. How many marines are there afloat now?

General LEJEUNE. About 2,000. We can not properly reduce the number. We can not reduce very much—in fact it is in the hands of the State Department, any reduction that may be effected in Santo Domingo or Haiti. That is in their hands. Very little reduction can come there. Most of the reduction will have to come from our expeditionary force.

Senator NEWBERRY. How many men are ordinarily on duty in the listed force here in Washington?

General LEJEUNE. You mean the marines?

Senator NEWBERRY. Yes.

General LEJEUNE. Off-hand, I should say we have between 500 and 600 here now.

Senator NEWBERRY. Do you remember how many men you detailed for police duty during the peace conference?

General LEJEUNE. We had a company of 125 men.

Senator NEWBERRY. One hundred and twenty-five men doing that work for four or five months?

General LEJEUNE. Yes. As to the men in Washington, we have a detachment at the navy yard. It is guarding the navy yard.

Then we have another detachment at the barracks, which constitutes our overhead for what we call the Marine Corps institute. It is a correspondence school for the Marine Corps and is based on the International Correspondence School at Scranton, Pa.—that is, it is similar to that institution—and these men we have here conduct the courses with the men all over the world. The course does not cost the men anything at all. It costs the Government, besides the upkeep of the men, only the cost of the textbooks, which we buy at low prices, and it is a very valuable feature of our training. It does not take up the time of the men which is required for other duties. The men study out of working hours.

Senator POINDEXTER, I think you have been down there and have been in the school.

Senator POINDEXTER. Yes.

General LEJEUNE. It is evidently popular, because it keeps up. The men did not like it, they would quit.

NUMBER OF ENLISTED MEN AND OFFICERS.

Senator POINDEXTER. What is the number of enlisted men in the Marine Corps at present?

General LEJEUNE. We have approximately 20,500 men.

Senator POINDEXTER. Enlisted men?

General LEJEUNE. Yes.

Senator POINDEXTER. How many officers?

General LEJEUNE. Nine hundred and sixty.

Senator POINDEXTER. What number is provided for in the appropriation carried in the bill as it came from the House?

General LEJEUNE. Nineteen thousand five hundred enlisted men and 994 officers. We are going to appoint about 25 or 30 graduates of the Naval Academy, which will bring us up to approximately the number carried in the bill.

Senator POINDEXTER. Those men prefer to go into the Marine Corps?

General LEJEUNE. We have a large number of applicants for this year's class that want to go into the Marine Corps.

Senator POINDEXTER. General McCawley, did you have any statement to make?

General McCawley. No; General Lejeune has covered the matter I had to speak of. There is an error in the House bill appropriating only 40 cents per ration, instead of 45 cents, as they gave the Navy. As we have identically the same ration as the Navy we ought to have the same amount.

(The statement of General Lejeune is here printed as follows:)

DISTRIBUTION OF AUTHORIZED ENLISTED PERSONNEL ON ACTIVE DUTY AT HOME ON FOREIGN STATION, AND AT SEA, MARCH 1, 1922.

[Authorized March 1, 1922, 21,000.]

Annapolis, United States Naval Academy.....	80	St. Juliens Creek, Va., naval ammunition depot.....	
Alexandria, naval torpedo station.....	12	Pensacola, Fla., naval air station.....	"
Boston, marine barracks, navy yard.....	125	Philadelphia, Pa.:.....	
Charleston, marine barracks, navy yard.....	150	Marine barracks, navy yard..	32
Chelsea, hospital guard.....	20	Receiving station.....	30
Hampton Roads, Va., naval operating base.....	125	Fort Mifflin, Pa., naval ammunition depot.....	50
Hingham, Mass.:.....		Point Isabel, Tex., naval radio station.....	25
Naval ammunition depot....	50	Portsmouth, N. H.:.....	
Receiving ship.....	50	Marine barracks, navy yard..	115
Indianhead, naval proving ground.....	75	Naval prison detachment.....	152
Key West, Fla., naval operating base.....	75	Otter Cliffs, Me., naval radio station.....	12
New London, Conn., submarine base.....	50	South Charleston, W. Va., naval ordnance plant.....	36
New Orleans, La., marine barracks, naval station.....	100	Washington, D. C.:.....	
Newport, R. I., naval torpedo station.....	125	Marine barracks, barracks detachment.....	50
New York, N. Y.:.....		Marine Corps Institute.....	178
Marine barracks, navy yard..	238	Navy yard.....	125
Receiving ship detachment..	25	Naval hospital guard.....	30
Naval hospital guard.....	20	Marine Band.....	67
Fort Lafayette, N. Y., naval ammunition depot.....	12	Headquarters Marine Corps:	
Iona Island, N. Y., naval ammunition depot.....	50	Assistant to commandant.....	90
Dover, N. J., naval ammunition depot.....	65	M. G. C. and A. and I.....	50
Norfolk, Va.:.....		Paymaster department.....	73
Marine barracks, navy yard..	202	Quartermaster department...	19
Sea school.....	65	Navy Building guard.....	10
Naval hospital guard.....	20	Garage and dock.....	24
		Yorktown, Va., naval mine depot.	44

tico, Va.:	
permanent detachments.	468
Third Brigade.....	3,067
Fourth Brigade.....	
is Island, S. C.:	
Post organizations.....	710
Recruits and apprentices.....	1,030
	<u>1,740</u>
f offices (East):	
Assistant paymaster, Phila-	
delphia.....	9
Assistant paymaster, Atlanta.	10
Depot of supplies, Hampton	
Roads.....	41
Depot of supplies, Philadel-	
phia.....	70
ruiting (East):	
Eastern Division.....	403
Central Division.....	
Southern Division.....	
Recruiting Bureau.....	
ruiting (West):	
Western Division.....	
Mountain Division.....	

DEPARTMENT OF PACIFIC.

e Island, Calif.:	
Barracks detachment and	
guard companies.....	304
Rifle-range detachment.....	25
Naval ammunition depot.....	36
Naval prison.....	80
	<u>445</u>
ruit depot, Mare Island:	
Instructors.....	77
Recruits.....	300
Sea school.....	115
	<u>492</u>

DEPARTMENT OF PACIFIC—Continued.

Puget Sound, Wash.:	
Marine barracks, navy yard..	190
Naval ammunition depot.....	36
Keyport, Wash., naval torpedo	
station.....	<u>25</u>
San Diego, Calif.:	
Barracks detachment.....	74
Navy repair base.....	60
R. S., Chollas Heights.....	12
Fuel plant, La Playa.....	20
Naval air station.....	50
	<u>180</u>
Fifth Brigade, Seventh Regiment.	887
San Pedro, Calif., U. S. S. Eagle	
No. 11.....	30
San Francisco, Calif.:	
D. of P. and A. A. and I.....	11
Assistant paymaster.....	10
Depot of supplies.....	35
Aviation.....	750
Marine detachment afloat.....	1938

FOREIGN.

Santo Domingo.....	2,291
Haiti.....	1,696
Cavite.....	162
Olongapo.....	125
Nicaragua.....	107
Pearl Harbor.....	375
Guam.....	500
Guantanamo Bay.....	175
Virgin Islands.....	150
Peking.....	325
Russian Islands.....	15
Total.....	<u>5,921</u>
Casual detachments.....	880
Grand total.....	<u>21,000</u>

Distribution of authorized enlisted personnel on active duty at home, on foreign station, and at sea.

[Authorized March 1, 1922, 21,000.]

At sea.....	1,938
Guards for navy yards, ammunition depots, naval stations, etc., at home	
and abroad.....	4,379
Aviation (at home and abroad).....	750
Garrisons for Haiti, Santo Domingo, Virgin Islands, Peking, Nicara-	
gua, and Guam.....	5,069
Permanent detachments for training stations, recruiting service, head-	
quarters, Staff offices, supply depots, Marine Corps Institute, Quan-	
tico, San Diego, and Marine Band.....	2,469
Recruits under training.....	1,550
Expeditionary Force:	
East Coast.....	3,078
Third Brigade, consisting of First Regiment (technical and sig-	
nal), Tenth Regiment (Artillery); Fourth Brigade, consisting	
of Fifth Regiment (Infantry and marine guard units), Sixth	
Regiment (Infantry and marine guard units).....	
West Coast.....	887
Fifth Brigade, consisting of Seventh Regiment (Infantry).....	
Casual detachments.....	880
Total.....	<u>21,000</u>

SALARIES—CHIEF CLERK.

Assistant Secretary ROOSEVELT. If you are through with General Lejune, there is only one thing that the Navy Department would like to add to-day, and that is a plea in consonance with the Secretary's letter to Chairman Warren, asking to have the salaries of the chief clerks raised. They are very much too low.

Senator HAWLEY. How much do they get, \$2,250?

Assistant Secretary ROOSEVELT. The chief clerk of the department gets \$3,000 and we recommend that he be raised to \$5,000.

Senator POINDEXTER. What page is that on of the bill?

Assistant Secretary ROOSEVELT. It runs all the way through. The first one will come under contingencies of the Navy, on second page, under office of the Secretary.

Senator POINDEXTER. The chief clerk at \$3,000?

Senator HALE. What is it you are asking, that they be increased to what?

Assistant Secretary ROOSEVELT. That the chief clerk be increased from \$3,000 to \$5,000, and that the private secretary to the Secretary of the Navy be increased from \$2,500 to \$3,600; and then I will read off the list, I will go right down with the chief clerks of bureaus, and I will file this particular letter with the committee that it will have these details in it.

There is a reclassification bill up now, the Sterling bill, which passed the House and is before the Senate, as I understand it, I understand there are a number of amendments that are coming up on it, and that it is indefinite as to when it will go through.

Senator NEWBERRY. This committee has that bill.

Assistant Secretary ROOSEVELT. I thought that the Civil Service Committee had it.

Senator PHIPPS. Yes; we have it.

Assistant Secretary ROOSEVELT. Then, if it goes through, Senator, I think you will find it is quite a time before it will go into effect, and the salaries asked here are in consonance with the recommendations as carried in that particular bill. For instance, take of the chief clerk. Under the reclassification it will be, as I stand, \$5,100.

(The letter of the Secretary of the Navy is here printed, as

Arran

MY DEAR MR. CHAIRMAN: The estimates for the Navy Department for the year ending June 30, 1923, as submitted in the Budget, provided compensation of 12 of the most responsible civilian employees of the department aggregating \$12,800. The employees concerned occupy positions of great importance in the Navy Department, but because their salaries are specifically fixed by Congress it has not been possible to increase in pay to these particular individuals. The following are the estimates:

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

Position.	Present pay.	Recommended pay.
Chief clerk, Navy Department.....	\$3,000	\$5,000
Private secretary to the Secretary of the Navy.....	2,500	3,000
Financial assistant, Bureau of Supplies and Accounts.....	2,500	3,000
Chief clerk, Office of Chief of Naval Operations.....	2,250	3,000
Chief clerk, Bureau of Navigation.....	2,250	3,000
Chief clerk, Bureau of Engineering.....	2,250	3,000
Chief clerk, Bureau of Construction and Repair.....	2,250	3,000
Chief clerk, Bureau of Ordnance.....	2,250	3,000
Chief clerk, Bureau of Medicine and Surgery.....	2,250	3,000
Chief clerk, Bureau of Yards and Docks.....	2,250	3,000
Chief clerk, Bureau of Aeronautics.....	2,250	3,000
Chief clerk, Office of Naval Intelligence.....	1,800	2,500
Total increase.....		

The amounts recommended are not in excess of the salaries which will be paid to the persons holding these positions under any of the pending proposals for their classification. No increases have been allowed in the pay of these positions except the temporary bonuses) and the increase at that time was only for the chief clerks of the bureaus. The Naval Establishment and the Navy are very much larger now than in 1914, so that there have been corresponding increases in the responsibilities of these employees who handle the office end of the work of the bureaus. During the absence of the chief of a bureau and the designated assistant chief clerks not infrequently are required to act as heads of these bureaus and are employed.

For the foregoing reasons I urge that—without waiting for final action on the classification of positions in the Government service—provision be made for an increase in the pay of these employees as recommended in the estimates.

Sincerely,

EDWIN D. BROWN,
Secretary of the Navy.

HON. F. E. WARREN,
Chairman Committee on Appropriations, United States Senate.

(Thereupon, at 1.25 o'clock p. m., the committee adjourned on Wednesday, May 10, 1922, at 10.30 o'clock a. m.)



NAVY DEPARTMENT APPROPRIATION BILL, 1

WEDNESDAY, MAY 10, 1922.

UNITED STATES SENATE, SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS, Washington, D. C.

The committee met, pursuant to adjournment, at 11 o'clock
Senator Carroll S. Page presiding.
Senators Page (chairman), Poindexter, Hale, Phipps,
and Glass.

INCREASE OF THE NAVY.

STATEMENT OF HON. EDWIN DENBY, SECRETARY OF THE NAVY.

Mr. Secretary, are you ready to proceed with your

Mr. Chairman, I think was the
as it came

House.

or PAGE. Yes.

Mr. DENBY. And the testimony given in the House com-
mittee is before you.

I am going to read a very brief statement, with your permission,
Mr. Chairman, and submit it as a statement of the department's
to you, and then have called the admirals in charge of
technical bureaus, for any questions the committee may wish
put to them.

I wish to lay before you this matter in a broad general way, in this
memorandum [reading]:

The appended table shows the ships to be completed, including aircraft carriers,
the estimated expenditures for 1923 at normal rate of progress. This table also
shows the estimated expenditures which would result if all construction upon the
vessels were suspended and work slowed down to the limit upon all other vessels.
If the House "scrapping bill" becomes a law, it is assumed that all expenditures
on vessels to be scrapped made after February 8, 1922, will not be chargeable to
appropriations for the increase of the Navy. Upon this assumption there will be
available, under the subheadings of the appropriation "Increase of the Navy," bal-
ances as of July 1, approximately as follows:

Construction and machinery.....	\$2,800,000
Submarine-boats destroyers.....	9,700,000
Armor and armament.....	25,685,000
Ammunition.....	6,200,000
Total.....	44,385,000

For ordnance purposes in 1923 there will be required, with work slowed to the
limit, \$16,218,000. Subtracting this sum from the total available balance given
above of \$44,385,000, there will be left for expenditures under the appropriation
"Increase of the Navy, construction and machinery," the sum of \$28,167,000.

4. For construction and machinery purposes with work slowed to the limit as shown by the table, there will be required for the fiscal year 1923, \$49,580,000, as against an available balance of only \$28,167,000. Therefore there will be \$21,413,000 additional moneys required.

5. If work is slowed below the limits set in the table, it will be necessary to devote very considerable funds to the payment of overhead expense which does not contribute to the completion of the vessels, and would therefore very greatly increase their estimated cost. Work at the slow rate contemplated by the table can be carried on, however, to the extent by which the payments can be deferred. Such deferred payments can not, however, exceed \$11,400,000.

6. The extra cost entailed by deferring said payments should not exceed \$150,000, or at the most \$200,000, and will cost the Government much less than if work were stopped.

7. If construction, therefore, is slowed to the limit and \$11,400,000 are payments deferred, the Navy Department will find itself in the following situation on the 1st of July, 1922:

Minimum amount necessary for ordnance, 1923.....	\$16,214,000
Minimum amount necessary for construction and machinery, 1923.....	49,580,000
	<u>65,794,000</u>

Amount available as per paragraph 2.....	44,385,000
Payments which can be deferred.....	11,400,000
	<u>55,785,000</u>

Minimum amount which should be appropriated, \$10,013,000; in round numbers \$10,000,000.

For normal progress.

	Required for each ship or group, 1923.			Required for each ship or group, subsequent years.			
	Hulls and machinery.	Ordnance.	Total.	Hulls and machinery.	Ordnance.	Total.	Total to finish.
Colorado.....	\$2,229,000			0			
Maryland.....				0			
West Virginia.....	3,381,000			0			
Total, battleships.....	5,610,000	\$6,919,781	\$12,529,781	0	\$717,806	\$717,806	\$13,247,587
Lexington.....	7,000,000	3,600,000		\$7,735,000	1,900,000		
Saratoga.....	7,000,000	3,600,000		7,967,000	1,900,000		
Total, without aircraft.....	14,000,000	7,200,000	21,200,000	15,702,000	3,800,000	19,502,000	40,702,000
Aircraft and aircraft accessories for the two.....			2,500,000			2,500,000	4,122,000
Total, aircraft carriers.....			23,700,000			22,122,000	45,822,000
Scout cruisers Nos. 4, 5, and 6.....	3,209,000	1,100,000		0			
Scout cruisers Nos. 7 and 8.....	7,032,000	750,000		0			
Scout cruisers Nos. 9 and 10.....	1,930,000	900,000		0			
Scout cruisers Nos. 11, 12, and 13.....	13,200,000	1,478,084		790,000			
Total, scout cruisers.....	25,371,000	4,228,084	29,599,084	790,000	78,000	868,000	30,467,084
Destroyers.....	1,750,000	1,477,078	5,227,078	0	0	0	5,227,078
Gunboat No. 22, Tulsa.....	534,000			0			
Destroyer tender No. 3, Dobbin.....	1,656,000			0			
Destroyer tender No. 4, Whitney.....	3,000,000			161,000			
Repair ship No. 1, Medusa.....	1,010,000			0			
Submarine tender No. 3, Holland.....	3,000,000			535,000			
Total, auxiliaries.....	9,230,000	136,958	9,366,958	696,000	0	696,000	10,062,958

¹ For gyro compass equipment.

	For normal progress.						
	Required for each ship or group, 1923.			Required for each ship or group, subsequent years.			
	Hulls and machinery.	Ordnance.	Total.	Hulls and machinery.	Ordnance.	Total.	Total to finish.
submarines S-8 to S-13.....	\$1,744,000	\$20,000	.....	0	.....	.....	.....
submarines S-18 to S-47.....	11,728,000	1,260,000	.....	0	.....	.....	.....
submarines S-48 to S-51.....	921,000	.....	.....	0	.....	.....	.....
submarines V-1 to V-3.....	4,800,000	110,000	.....	\$4,054,000	.....	.....	.....
Total, submarines.....	19,193,000	1,390,000	\$20,582,244	4,054,000	\$408,469	\$4,462,469	\$25,044,713
battle ship No. 1, Kearsarge....	220,000	0	220,000	0	0	0	220,000
Grand total (without aircraft.....)	74,374,000	.....	98,725,166	21,242,000	5,004,574	26,246,574	124,971,740
Grand total (including aircraft.....)	.....	.....	101,225,166	.....	.....	28,879,574	130,104,740

	For progress slowed to the limit.						
	Required for each ship or group, 1923.			Required for each ship or group, subsequent years.			
	Hulls and machinery.	Ordnance.	Total.	Hulls and machinery.	Ordnance.	Total.	Total to finish.
Colorado.....	\$2,229,000	\$3,000,000	.....	0	.....	.....	.....
Maryland.....	0	1,000,000	.....	0	.....	.....	.....
West Virginia.....	3,381,000	2,000,000	.....	0	.....	.....	.....
Total, battleships.....	5,610,000	6,000,000	\$11,610,000	0	\$1,637,266	\$1,637,266	\$13,247,266
Washington.....	5,500,000	550,000	.....	.....	.....	.....	.....
Albatross.....	5,500,000	550,000	.....	.....	.....	.....	.....
Total, without aircraft.....	11,000,000	1,100,000	12,100,000	\$19,000,000	9,900,000	28,900,000	41,000,000
aircraft and aircraft accessories for the two.....	.....	.....	0	.....	5,133,000	5,133,000	5,133,000
Total, aircraft carriers.....	.....	.....	12,100,000	.....	34,033,000	46,133,000	46,133,000
but cruisers Nos. 4, 5, and 6.....	3,200,000	1,100,000	.....	0	.....	.....	.....
but cruisers Nos. 7 and 8.....	3,500,000	750,000	.....	3,650,000	.....	.....	.....
but cruisers Nos. 9 and 10.....	1,930,000	900,000	.....	0	.....	.....	.....
but cruisers Nos. 11, 12, and 13.....	6,000,000	1,479,000	.....	8,200,000	.....	.....	.....
Total, scout cruisers.....	14,630,000	4,228,000	18,858,000	11,850,000	78,684	11,928,684	30,786,684
destroyers.....	1,120,000	3,500,000	3,620,000	1,639,000	977,078	1,607,078	5,227,078
minesweeper No. 22, Tulsa.....	500,000	0	.....	34,000	.....	.....	.....
destroyer tender No. 3, Dobbin.....	.....	.....	.....	.....	.....	.....	.....
destroyer tender No. 4, Whitney.....	200,000	0	.....	9,392,000	.....	.....	.....
pair ship No. 1, Medusa.....	.....	.....	.....	.....	.....	.....	.....
marine tender No. 3, Holland.....	.....	.....	.....	.....	.....	.....	.....
Total, auxiliaries.....	700,000	0	700,000	9,426,000	136,999	9,562,999	10,262,999
submarines S-8 to S-13.....	1,750,000	20,000	.....	0	.....	.....	.....
submarines S-18 to S-47.....	11,700,000	1,260,000	.....	22,000	.....	.....	.....
submarines S-48 to S-51.....	900,000	.....	.....	21,000	.....	.....	.....
submarines V-1 to V-3.....	3,000,000	110,000	.....	6,000,000	.....	.....	.....
Total, submarines.....	17,350,000	1,390,000	18,740,000	6,043,000	407,713	6,450,713	25,190,713
battle ship No. 1, Kearsarge....	170,000	0	170,000	60,000	0	60,000	230,000
Grand total (without aircraft.....)	49,580,000	16,218,000	65,798,000	47,009,000	13,137,740	60,146,740	125,944,740
Grand total (including aircraft.....)	.....	.....	65,798,000	.....	65,279,740	131,077,740	131,077,740

For gyro compass equipment.

We have prepared a copy of these tables for each of you gentlemen, and I am going to ask the chairman if he will call on Admiral Taylor to explain anything that you may wish to go into concerning this tabulation. May I call Admiral Taylor, Mr. Chairman?

STATEMENTS OF REAR ADMIRAL DAVID W. TAYLOR (C. C.), UNITED STATES NAVY, CHIEF OF THE BUREAU OF CONSTRUCTION AND REPAIR, AND REAR ADMIRAL CHARLES B. McVAY, JR., CHIEF OF THE BUREAU OF ORDNANCE, ACCOMPANIED BY REAR ADMIRAL J. K. ROBISON, UNITED STATES NAVY, CHIEF OF THE BUREAU OF ENGINEERING.

Senator PAGE. Admiral Taylor, will you give answers to any inquiries that the Senators wish to make? Will the members of committee make such inquiries as they think best at this time?

AMMUNITION.

Senator POINDEXTER. Admiral Taylor, what does this item of \$6,200,000 for ammunition consist of? What are the subitems composing that?

Admiral TAYLOR. Admiral McVay, I think, can answer that better than I.

Assistant Secretary ROOSEVELT. As a matter of fact, Mr. Chairman, I think if you will put the chiefs of bureaus side by side, you can hear them jointly, to advantage. There is a general statement here prepared by three of them.

CONSTRUCTION AND MACHINERY.

Senator POINDEXTER. What are the items, Admiral Taylor, composing the \$2,800,000 for "construction and machinery"?

Admiral TAYLOR. Under which head?

Senator POINDEXTER. In the statement made by the Secretary of the Navy?

Admiral TAYLOR. That was a balance, Senator, which will be left under that appropriation the 1st of July.

Senator POINDEXTER. Have you undertaken to allot that?

Admiral TAYLOR. No, sir; this is a lump-sum appropriation, and this is available for all of those ships that appear in that table.

Senator POINDEXTER. Out of this \$10,000,000 additional appropriation that the Secretary of the Navy asks for, what amount would be allotted to "Construction and machinery"?

Admiral TAYLOR. That was all asked for under "Construction and machinery."

Senator NEWBERRY. It is separated somewhere? Some of your estimates separated the machinery from the rest?

Admiral TAYLOR. "Construction and machinery" goes at once to the hulls and machinery; the appropriations are for "Construction and machinery," "Armor and armament," and "Ammunition."

Senator NEWBERRY. That is the way the money is appropriated.

Senator POINDEXTER. Will you make a statement to us of just what work can be carried on, on construction and machinery, and make a full statement of it, under the appropriation you say is

able as the bill now stands, and what would be carried on in you could get the additional \$10,000,000 that the Secretary for, and any recommendations you may have to make in regard to matter?

miral TAYLOR. We have not been able to figure out any satisfactory method in case we do not get some additional appropriations.

it tell you what we would do under the \$10,000,000; and if we not get the \$10,000,000 we will probably have to stop work wholly on some ships, because to carry on work at a low rate is economical.

ere are some ships we must finish next year. The *Colorado* and *West Virginia* are so nearly done that it would be very expensive to stop construction on them. The *Colorado* and *West Virginia* will be, after the 1st of January, \$5,610,000 to finish them.

CONSTRUCTION OF SUBMARINES.

obably the next most pressing obligation is in connection with the submarines. We have a large number of submarines under construction and their percentage varies from 71 per cent to practically completed. We have recently made a very good deal by which all those submarines have been put upon the lump-sum basis instead of the plus basis. We have made an arrangement by which those submarines are all upon the lump-sum basis, and that requires us to go out and pay for them, if possible. That will absorb next year, to

those submarines that have been put upon the lump-sum—that alone will absorb the \$11,700,000.

nator NEWBERRY. May I interrupt right there? There are two sets of figures that I see in the table before me. One is for normal increase during 1923, and another, increase, for which you want \$100,000, and another slowed down, which shows \$17,000,000. Those figures are \$11,000,000.

miral TAYLOR. \$11,747,000. Those are the figures for the submarines that have been put upon the lump-sum basis. There are amounts which make up the total of the \$17,000,000.

nator NEWBERRY. Yes; I understand.

miral TAYLOR. But these vessels have been delayed for some time. We have now got satisfactory arrangements to go ahead and complete them, and they should be finished.

nator POINDEXTER. How much money will be required to complete those?

miral TAYLOR. To finish those 30, it will require \$11,700,000 by the 1st of July.

nator POINDEXTER. How much would be expended on them under your plan in the next fiscal year, out of the funds you are asking for in this bill?

miral TAYLOR. We would propose to finish them in the next year.

nator POINDEXTER. Then the entire additional amount, and that, would be used for that purpose?

miral TAYLOR. Yes, sir.

nator POINDEXTER. You are asking \$10,000,000 additional, you say the cost would be \$11,000,000 and something to finish them.

Admiral TAYLOR. It would absorb more than \$10,000,000; but the \$10,000,000 is simply added to the amount we figure is the minimum we could get along with otherwise.

Senator POINDEXTER. How much would be expended with the \$10,000,000 on the submarines?

Admiral TAYLOR. We would not allot it. We would take total amount that is available, which would be \$44,000,000, prorate it to the ships, and if we got that additional amount would spend \$11,000,000 on the submarines, but some of it would have to be deferred. We would carry on the progress \$11,000,000 worth.

Assistant Secretary ROOSEVELT. Mr. Chairman, if I may, I will make a statement on that and clarify that particular situation.

The Secretary just put up three recommendations. One, roughly, was the amount of money necessary to carry on at the normal rate of progress.

The second one was that slowing the work to the limit would require \$21,000,000.

The third one was that it might be possible to defer payment approximately \$11,000,000, or \$21,000,000, if it was considered advisable to appropriate only \$10,000,000, and achieve the same progress which is the slowest rate possible, by the appropriation of \$10,000,000 and the deferring of \$11,400,000.

Those were the three recommendations; so that the additional appropriation comes only as part of the third recommendation which was put before the committee, the idea being with \$11,400,000, and with \$10,000,000 additional, making in all \$21,000,000.

Senator POINDEXTER. That is one of the recommendations we would like to know how it would come out at the end of that should be selected by Congress. Of course, we would like to know whether you will get anything at all except what we have.

Admiral TAYLOR. That is shown in the table, headed, "For progress slowed to the limit," for 1923. It shows that we will defer about \$11,000,000 worth, and get, \$10,000,000.

Senator POINDEXTER. How much would be needed for the construction of those S-boats under that?

Admiral TAYLOR. That is a matter that would have to be determined after we found out what we had; but I think we would need about 30 S-boats in any case next year.

Senator POINDEXTER. In any case?

Admiral TAYLOR. Yes; that is something that would have to be taken up after we found out what we had gotten.

Senator POINDEXTER. How does it happen that the third paragraph of the memorandum for the Senate Appropriations Committee, which has just been submitted by the Secretary, includes nothing whatever for torpedo boats?

TORPEDO BOATS.

Admiral TAYLOR. That statement shows that the money for the construction of torpedo boats is included in the money. The appropriation "Increase of the Navy, and for the construction of the Navy," is for the submarines.

Senator POINDEXTER. But this shows nothing here.

Admiral TAYLOR. That shows the balance that will be available 1st of July; and that balance will be zero.

Assistant Secretary ROOSEVELT. That just shows what the amount remaining as contained in the House appropriation bill will be.

That is what we will have left over out of those particular appropriations; but it can be reallotted by the Secretary, and the requirement on a minimum progress is indicated on the right side of the table.

Senator POINDEXTER. Yes, I know; but I think that we might get the clear, definite information here if we might follow out two or three questions and get answers to them.

This statement, as I understand, shows the proposed segregation and allotment of the balance of the construction fund that would be available under the bill as it now stands?

Admiral TAYLOR. No; it is a statement of balances under these appropriations. That statement does not include the allotment.

Senator POINDEXTER. That does not include the allotment?

Admiral TAYLOR. That simply gives the money which, under the present bill, we estimate will be available the 1st of July.

Senator POINDEXTER. And it is subject to reallocation and redistribution?

Admiral TAYLOR. That is the provision in the House bill, that it may be redistributed to the submarines, battleships, and anything else.

Senator POINDEXTER. The only restrictions on this allotment by the bill were, \$90,000,000 for increase of the Navy, subject to such segregation and allotment as you might see fit to make?

Admiral TAYLOR. No, sir; that was under four main heads of increase of the Navy, construction and machinery; "Increase of the Navy, torpedo boats," which applied to submarines; "Increase of the Navy, armor and armament," which could only be devoted to armament of new vessels; and "Increase of the Navy, munition," which could only be devoted to ammunition for the vessels.

Senator POINDEXTER. Then in segregating these amounts or in changing the heads under which they are now held, what changes would you make in this list that is covered in the second paragraph of the Secretary's memorandum, in case no additional increase is allowed?

Admiral TAYLOR. The net result of that would be that we would have available for "Construction and machinery" \$28,000,000.

Senator NEWBERRY. Would you not have the whole \$44,000,000?

Admiral TAYLOR. \$16,000,000, as is stated here, is the irreducible minimum for ordnance purposes.

Senator NEWBERRY. It is not in the law.

Admiral TAYLOR. No, sir; it is not in the law.

Senator NEWBERRY. The Secretary of the Navy can do what he wants toward completion of vessels?

Admiral TAYLOR. Yes.

Senator NEWBERRY. So that when you say \$16,000,000 for ordnance, it means that that is the decision of the department?

Admiral TAYLOR. Yes, sir.

ALLOTMENT OF AVAILABLE FUNDS.

Senator NEWBERRY. As I understand, what the committee wants is to know how that \$44,000,000 will be allotted if there is no further appropriation.

Senator POINDEXTER. That is exactly what I am trying to get at.

Senator NEWBERRY. It is absolutely necessary for us to have that information before we can compare these two plans of the department with the plan of the House of Representatives, which is represented by the law they have passed.

Senator POINDEXTER. To explain, Admiral Taylor, the question that I asked you, the purpose of it, or one purpose of it, is: You stated just now that under any disposition of this question alternative condition as to what Congress might do, or whether made any change in the bill or not, you would go ahead and complete the torpedo boats, the submarines, and yet, in the state of the present status of these funds, there appears to be whatever in the balance for torpedo boats. Now, what we know is how you would redistribute that money so as to \$10,000,000 or \$11,000,000 and complete the torpedo boats, when there is nothing whatever in it in the present condition of the

Admiral TAYLOR. If I stated that, I stated what I did not to state. I stated that I thought that would probably be the desire of the department, but that bridge has not been crossed by the department yet.

As regards those figures in paragraph 2 of that statement, simply shows the total lump sum which will be available for redistribution by the department. It shows the balances of the appropriations.

Senator POINDEXTER. We want to get some idea of how you going to redistribute it.

Admiral TAYLOR. On the redistribution, a little further on, you will find that the statement is \$16,000,000 for ordnance purposes leaving \$28,000,000 available for all of the C. and M. purposes.

I might say in that connection, Senator, that including those submarines as an obligation, our estimated obligations the 1st of July under "Construction and machinery," hulls and machinery, are about \$26,500,000, so that unless we get further money we will not be able to do anything to speak of upon the aircraft carriers. We will probably have to slow down, having deferred payments on submarines. There is a provision in the submarine contracts by which we can defer some of the payments.

Senator HALE. That is, could you keep on with the work and defer the payments?

Admiral TAYLOR. Defer the payments.

Senator HALE. There will be no difference in the number of the submarines that will be turned out during the year?

Admiral TAYLOR. That would be a question to be decided after we got that money; and unless we get some further money and defer payments, we will virtually have to stop work the next year.

Senator HALE. You have already stated that you would complete the 30 submarines to which you have referred, regardless of whether you got that increase or not.

Admiral TAYLOR. It is probable we would do that, Senator; but can only be done by deferring some of their payments.

Senator HALE. That can be done?

Admiral TAYLOR. By deferring probably half of the contract price to be paid.

Senator POINDEXTER. Under the bill as it passed the House, including any unexpended balance, what amount of money will be available for the Bureau of Engineering and for the engines of the ships that are under construction?

Admiral TAYLOR. That appropriation, "Construction and Machinery," is joint between the Bureau of Construction and Repair and the Bureau of Engineering. We handle it as one.

Senator POINDEXTER. Then this item of \$44,385,000 includes the amount that would be available for the engines as well as for the hulls and machinery?

Admiral TAYLOR. Yes, sir.

Senator HALE. Under the bill as passed by the House the Secretary of the Navy may use interchangeably the unexpended balances for appropriations heretofore made?

Admiral TAYLOR. Yes, sir.

Senator HALE. So that it does not need to be divided into engineering and ordnance.

Admiral TAYLOR. The natural course would be to divide it up under heads under which we formerly had the appropriations.

Senator POINDEXTER. That is, you would divide it for the purpose of expenditure?

Admiral TAYLOR. Into hull and machinery, armor and armament, and so on. We would have to make some division in the early part of the year so as to know where we stand.

Senator POINDEXTER. You have not made any division yet?

Admiral TAYLOR. No, sir.

Senator POINDEXTER. Then you can not tell us what disposition will be made of this \$44,000,000?

Admiral TAYLOR. Except that it is to be used to carry on the work far as possible. We would probably have to endeavor to defer still further payments in order to avoid the stopping of the work, at great expense. The stopping of work entails a great deal of expense. If I will look at the table you will see the three scout cruisers that are advanced are Nos. 11, 12, and 13. Under the normal course we would spend \$13,000,000 on them next year. Slowed to the limit, cut that down to \$6,000,000, which is about 30 per cent. The tractor states—we having taken it up in a preliminary way with us, what we could do if we had no money—the contractor states that if they simply stand still on the ways next year, and nothing else done on them, it will cost \$670,000 each for overhead and taking care of them. That is the estimate he makes. We think that estimate is high, but on that basis we would have to spend \$2,000,000 to accomplish no purpose. It would be very wasteful to stop work on ships entirely in private yards; and it does cost more money, and a great deal more money, to slow them down in private yards, but that is apparently unavoidable.

Senator POINDEXTER. Now let us start again. I presume, of course, that all those things were considered very carefully by the

House. I do not know what our committee will do when it comes to consider it, and I do not know what Congress will do; but after their consideration they allowed you a balance here, of \$44,385. I would like to know, in case it should be decided by Congress that further increase of appropriation is going to be made, what you will do with that \$44,385,000, and I understand you to say that you not prepared to tell us that.

Admiral TAYLOR. Not in details. That is a question that we would have to take up very carefully.

Senator POINDEXTER. I should think so, in the details; but general heads under which that money would be expended would be very important in aiding a committee to determine whether or not to recommend additional appropriations.

Admiral McVAY. Senator, may I say that, for instance, in these balances, the balances under ordnance on the 1st of July are estimated to be \$44,000,000. The other estimates are the balance from "Construction and machinery," the balance under "Ordnance"—

Senator POINDEXTER. Under "Ordnance"?

Admiral McVAY. Yes, sir; of the \$44,000,000—and the Secretary decided as a matter of policy that instead of estimating for a sum of money to complete this work this year, it would be to redistribute these balances and defer some ordnance work next year. In accordance with that policy we have rearranged plan and rearranged our ordnance work, so that \$28,000,000 of money is to be placed at the disposal of the other two bureaus, leaving about \$16,000,000 for ordnance work that must be done next year. So that, in talking of the \$44,000,000 there really is \$16,000,000 to continue our ordnance work and finish up the work under construction, leaving \$28,000,000 only for these other two bureaus. Now, the details of that—

AMOUNT ON HAND FOR ORDNANCE AS OF JULY 1, 1922.

Senator POINDEXTER. Where do you get your item of \$44 million balance for ordnance? In the statement made here, \$44 million for construction and machinery, torpedo-boat destroyers, submarines, and armor and armament.

Admiral McVAY. The actual balance on March 31, under "Ordnance," was \$42,898,111.

Senator POINDEXTER. How is that going to be increased?

Admiral McVAY. On the 1st of July it is going to be increased on account of the money which will be realized through the sale of the old bill, and the amount will become, as we estimate, \$44,000,000.

Senator POINDEXTER. That is practically the same amount stated as available under the head of increase in the general head.

Admiral McVAY. The difference is about \$3,000,000, set off to a set-off balance under torpedo-boat destroyers.

Senator POINDEXTER. Have you got a copy of the statement of the Secretary of the Navy, which he submitted to the committee this morning?

Admiral McVAY. I have not a copy right here.

Senator POINDEXTER. The second paragraph of it reads as follows: "If the House scrapping bill becomes a law, it is assumed that all expenditures upon the Navy to be scrapped made after February 8, 1922, will not be chargeable to any appropriations for the increase of the Navy. Upon this assumption there will be a balance available under the subheadings of the appropriation "Increase of the Navy" balances July 1, approximately as follows:

That is for increase of the Navy.

Admiral McVAY. Yes.

Senator POINDEXTER. Not for ordnance?

Admiral McVAY. No.

Senator POINDEXTER. The statement continues:

Construction and machinery.....	\$2,800,000
Torpedo boat destroyers.....	9,700,000
Armor and armament.....	25,685,000
Ammunition.....	6,200,000
Total.....	44,385,000

Admiral McVAY. The difference between the two, Senator, is due to the fact—

Senator POINDEXTER. The difference between what two?

Admiral McVAY. Between that balance given there, \$9,800,000, and the balance I am giving of \$13,250,000. This is the balance for the ordnance allotment. That is the balance under the total statement. In other words, there are \$3,000,000 that will be transferred to machinery, and—

Senator POINDEXTER. Will you explain to us how you get a balance in your statement, of what, did you say? It was something \$44,000,000?

Admiral McVAY. Yes.

Senator POINDEXTER. What is it in your statement? What is the balance for ordnance?

Admiral McVAY. This statement becomes—to compare with that combined statement I would take and correct the torpedo boat destroyer balance which I give—

Senator POINDEXTER. All that the Secretary has put down here for armor and armament, and for ammunition, is \$31,800,000.

Admiral McVAY. Yes; I have that right here. That is the combined statement.

This was a statement pertaining to ordnance alone. The balance under ordnance, of this combined statement, is \$41,685,000.

Senator POINDEXTER. I see. Then that includes—

Admiral McVAY. That includes more money. There is some additional money that will be transferred. In other words, I was speaking for the Bureau of Ordnance rather than this combined statement.

Now, the combined statement corrects the whole appropriation.

Senator POINDEXTER. What do you mean by "combined statement?"

Admiral McVAY. I mean the statement of the Secretary which brings into consideration all the balances.

Senator POINDEXTER. Does that take into consideration the balance in the ordnance also?

Admiral McVAY. Yes; that is the whole thing.

Senator POINDEXTER. Then how does it come that it is less than the separate statement of ordnance? You make \$41,000,000, and the only ordnance in this statement is \$31,800,000.

Admiral TAYLOR. That torpedo boat is ordnance allotment under that statement. That \$9,000,000 also comes from ordnance.

Senator POINDEXTER. Then I understand that the entire balance that will be available for increase of the Navy comes from the balance of the ordnance fund, with the exception of some \$3,000,000?

Admiral McVAY. \$2,800,000, yes, sir; that is the way it is determined, and out of that the expenditures that the Bureau of Ordnance has to make under battleships are \$6,000,000; on aircraft carriers we postpone all work except preliminary work, and there will be added \$1,100,000 as opposed to \$7,200,000 required. We continue using under the scout cruisers, \$4,228,000, because those are to be completed, and that is the same as in the original estimate. Under destroyers it is \$3,500,000 instead of \$4,477,078 which we had intended to spend.

Under submarines which will be completed the amount is \$1,390,000. That is practically the same as we intended to spend, anyway, because the vessels will be finished.

Under tenders and auxiliaries, we postpone work under them. Now, this contemplates postponing the antiaircraft work on the *Maryland*, the *Colorado*, and the *West Virginia*, and contemplates the postponement of all work on the aircraft carriers, except preliminary work, which includes design work and work for testing and general work; and that reduces our requirement next year from \$24,351,166 to \$16,218,000, the remainder being placed available for the Bureau of Construction and Repair and the Bureau of Engineering.

However, by taking ordnance money this year, it means that this year the Bureau of Ordnance will have to have money to do that work. As our appropriation now stands, we could do the ordnance work without additional money, but next year we have to ask under this appropriation, increase of the Navy, for armament, and ammunition, somewhere around \$14,000,000 or \$15,000,000.

Senator POINDEXTER. Now, can you state to us—or you, or any other available witnesses, state—in three items the balance that will be available for "Construction and Repair" as a separate item, for engines or such replacements as will be under the Bureau of Engineering as another item, and for armament and ammunition as another item? Are these three things are entirely separate. We would like to get some information as to how you are going to segregate them within its own limitations.

Admiral McVAY. Armor and armament and ammunition is \$16,218,000, which will be available this next year.

Senator POINDEXTER. I am not asking about what will be available. That is an entirely different proposition. I am asking about what will be on hand.

Admiral TAYLOR. Senator, you have in the Secretary's statement a tentative division of this amount into \$16,000,000 for the

ordnance business and armor, armament and ammunition, and 3,000,000 for the purposes of the hulls and machinery. That 3,000,000 we are not prepared to separate, because that is always handled as one appropriation—always has been. We handle it jointly. Senator POINDEXTER. Just a minute, before you go any further on it. You say you handle it jointly. The whole thing is handled jointly; it is all one lump sum, and you are transferring from one purpose to another. You have \$28,000,000 here as a balance that will be available, as the bill now stands, for "Construction and machinery?" Admiral TAYLOR. Yes.

Senator POINDEXTER. Now, you have scout cruisers and fleet submarines and battleships to complete. Can not your department tell now much will be necessary for scout cruisers—I mean how much that fund will be used for scout cruisers—and how much for battleships and how much for submarines?

Admiral TAYLOR. No, sir; and for this reason. Suppose we had for "Construction and machinery" to the 1st of July \$28,000,000. That would not enable us to do anything next year except to stop all work, for the reason that the 1st of July we estimate our material obligations, material commitments, at \$26,000,000 under "Construction and machinery." The amount of work we could do next year with that amount on that basis would depend entirely on how much payment we would defer. We would probably arrange with the shipbuilders to do a certain amount of work and defer payments. Otherwise it would be a fatal thing to stop all this work and have overhead and damages charged against us by every big shipyard in the country.

After we found out how much we could defer, we could make an estimate as to how much we could carry on. If we can not defer anything on that basis, I can tell you right now we would have to stop all work.

Senator NEWBERRY. If you have \$28,000,000, you will have to stop work, and if you have \$10,000,000 more, you can continue for 12 months?

Admiral TAYLOR. If there is \$10,000,000 more appropriated.

Senator NEWBERRY. \$10,000,000 more appropriated?

Admiral TAYLOR. We can carry on at a much lower rate. We have dealt with the shipbuilders yet and are not sure that we can defer.

Senator POINDEXTER. Let us start on that basis, that you get 1,000,000 more and defer payments of \$11,000,000.

Admiral TAYLOR. Yes, sir.

Senator POINDEXTER. What amount of money would you spend on the battleships, what on the scout cruisers, and how much on submarines?

Admiral TAYLOR. Under that estimate \$5,610,000 should finish the battleships. We would spend on the battle cruisers—that is, we would progress on the aircraft carriers—to the extent of the value of 1,000,000. For scout cruisers—

AIRPLANE CARRIERS.

Senator POINDEXTER. Now, on that item—progress on aircraft carriers—do you mean you would proceed with construction work on these cruisers in the process of converting them?

Admiral TAYLOR. Yes, sir.

Senator POINDEXTER. To the extent of how much?

Admiral TAYLOR. \$11,000,000 here includes \$7,000,000 already owe. We estimate that the 1st of July we will have \$7,000,000 on those vessels.

Senator POINDEXTER. You will not make much advance with construction of your aircraft carriers by paying obligations that you already owe.

Admiral TAYLOR. Not much; that was the difficulty we had.

Senator POINDEXTER. You are now speaking on the basis of the increase of \$10,000,000, I understand.

Admiral TAYLOR. Yes.

Senator POINDEXTER. And deferring—

Admiral TAYLOR. Deferring \$11,200,000, which it seems to me is the very minimum that we can get along with, without a very serious situation arising on the contracts next year.

Now, it is shown in that table you have there, the scout cruisers. 10 of them, we estimate to spend \$14,046,000 upon, on that.

Senator HALE. I do not see how you get your amount of \$10,000,000. You say you would have \$11,000,000, and you would have \$11,000,000. That would be only \$21,000,000. I think \$11,000,000 came out of the \$28,000,000.

Admiral TAYLOR. No, sir; if we defer it. That is exclusive of \$28,000,000.

Senator HALE. So that that is all accounted for, \$26,000,000 of the \$28,000,000. You just stated you would not have any of that. You would require all of that to pay obligations.

Admiral TAYLOR. Yes, sir; to proceed at this slower rate. We assume that will take care of our obligations next year. You see, this is under hulls and machinery, next year [indicating on paper].

Senator NEWBERRY. I see it.

Admiral TAYLOR. Coming on down the list with the auxiliaries and miscellaneous, we would spend \$11,700,000 on fixed-price submarines, or, including finishing the other eight boats, to carry on the work, \$17,350,000; and the crane ship, \$170,000, which is all obligated; making a total of \$49,580,000.

Senator HALE. \$49,580,000 for new work, or work on which you are already obligated?

Admiral TAYLOR. \$49,580,000 to carry out our obligations and carry on the work for next year. That is the \$28,000,000 which we have to start with, \$11,000,000 deferred and \$10,000,000 new money. I am only giving you round figures.

Senator POINDEXTER. I have not very clearly in mind how you got the \$10,000,000 to make up the sum of \$49,000,000 when you have a balance. You will have a balance of \$44,000,000, in numbers, and an addition of \$5,000,000 would bring you up to the total amount which you have just outlined, yet to be expended.

Admiral TAYLOR. The account of the tentative allotment \$16,000,000 for "Ordnance" and \$28,000,000 for "Construction machinery." The figures I have been giving you are the machinery figures alone. You will see the rest, including ordnance, in that column adjacent. You have "Hull and machinery" in one column and "Ordnance" in another.

Admiral McVAY. This is the statement of the ordnance [indicating on paper].

iator HALE. Under that plan, would you take care of the \$20,000 that you already owe?

miral TAYLOR. Yes, sir.

iator HALE. You would take care of that? That would be all out?

miral TAYLOR. Yes; and we include in that \$26,000,000, as obligation, the definite contract for submarines. That includes building the 30 S boats.

iator HALE. As it is now, you would have a deficit on your scheduled payments of \$11,000,000?

miral TAYLOR. Yes.

iator HALE. Just as this year you owe \$26,000,000?

miral TAYLOR. We do not owe all of that money yet, because of the obligations are not matured. But that includes the obligations we would have to take care of; the obligations to start and what would mature.

iator HALE. Would you have the money for it?

miral TAYLOR. Yes.

iator HALE. But you would not have the money for the \$20,000?

miral TAYLOR. Yes.

iator HALE. So that you are planning on a deficit of \$11,000,000?

miral TAYLOR. That is what it amounts to—postponed payments.

iator NEWBERRY. Referring again to your statement, if there is an added appropriation, the \$28,000,000 that will be available for construction and machinery for 1923 is required to meet obligations already incurred?

miral TAYLOR. Yes, sir; including the fixed price contract for submarines.

iator NEWBERRY. Can you tell how much of that is for material ordered and for bills past due, and how much is for material to be ordered at some time during the ensuing year, which of course, is due on July 1?

miral TAYLOR. It is approximately half and half. I have not exact figures, but it is approximately half and half. In other words, we will have on July 1, to pay during the next year, \$11,980,000 for 30 submarines alone, or defer the payments.

The majority of the material outside of the submarines is for material which will be delivered by the 1st of July. If there is any advance we will go into the year with about \$12,000,000 due.

Now, most of those obligations are not with the primary shipbuilders. They are with the subcontractors, and when they deliver material they expect to get their money.

iator POINDEXTER. This plan which you have just stated includes the carrying on of the work on the scout cruisers?

miral TAYLOR. Yes, sir. We would slow down very much the program. We will only carry them on at about 30 per cent, and expect to finish the first four or five this year. As you know, most of these scout cruisers are very well advanced, and we should get rid of the overhead. One shipbuilder has three building, and he is on other work. If we finish those vessels and get them delivered, stop paying his overhead. If we only keep one of them, he will let us pay practically all of his overhead until it is finished.

Senator POINDEXTER. Do you plan to do that if you are allowed the \$10,000,000?

Admiral TAYLOR. Yes; our plan is to finish the vessels which are most nearly completed; to put the majority of the slowing down on the vessels that have made least progress, where we will be least damaged by it. We have not been able to see our way, yet, to any distribution which would not be very prejudicial to the Government interests unless we get a little new money.

Senator POINDEXTER. What progress would be made on the S-boats under this plan?

Admiral TAYLOR. The S-boats will be practically all completed next year. The S-8 to S-13 would be completed. The S-18 to S-47, those 30 boats for which we now have a lump-sum contract, would be finished, except cleaning up loose ends. The S-48 to S-51 would be completed this year. We would practically complete it anyway, then. That would leave us for the year 1924 with only the fleet submarines to carry on. We would finish those 38 boats. Senator.

Senator NEWBERRY. Can you make an estimate of how you would recommend the allotment of this balance of \$28,000,000 and at the same time defer the payment of \$11,000,000 as you propose to do, if you had \$10,000,000 additional? In other words, by deferring \$11,000,000 with or without the \$10,000,000 with the \$28,000,000, how would you recommend that it be distributed on this list. That would be \$39,000,000, as you have it now, without the \$10,000,000. There would be \$10,000,000 left of this \$39,000,000?

Admiral TAYLOR. Yes, sir.

Senator NEWBERRY. How would you propose to distribute that so that we may know the necessity of adding \$10,000,000?

Admiral TAYLOR. We would do practically no work upon the converted aircraft carriers.

Senator NEWBERRY. Let us begin at the beginning, and let us mark them "1," "2," "3," and "4," in the order in which you would place them.

Admiral TAYLOR. I am only speaking for myself. That is a matter that would have to be passed upon by other people.

Senator NEWBERRY. That is what Senator Poindexter wants to know and what the committee must know in order to know the necessity for this \$10,000,000. It is a matter that should be and must be a matter of conference, and considered with care, and it must be before the committee before we can decide as to the necessity of the additional \$10,000,000.

Admiral TAYLOR. That would require us to pay \$10,000,000 under C. and M., under these figures you have here.

Senator NEWBERRY. This reduces it by \$10,000,000.

Admiral TAYLOR. Well, we would probably postpone a little more money on the *West Virginia* and the *Colorado*, and finish them. We would practically do no work on the conversion of aircraft carriers. As regards the scout cruisers we would stop on the last one entirely, and we would spend that \$2,000,000 and get no return. That would reduce it by \$4,000,000.

Senator POINDEXTER. What is that \$2,000,000 for?

iral TAYLOR. The \$2,000,000 is the estimate of the contractor piling them on the ways and doing no work. The rest of the which is needed we would have to take out of the submarines.

tor HALE. How much would that be?

iral TAYLOR. That would be in the neighborhood of \$3,000,000 00,000.

tor HALE. And that would have to come out of the subs?

iral TAYLOR. Yes; that would have to come out of the subs. I assume we would have to pay our obligations on battleships, which around July will be in the neighborhood of \$7,000,000; there will be some of those expenses which we can not avoid on converted battle cruisers, I would say.

iral TAYLOR. If we would carry out a little further the policy which we have adopted, and instead of spending \$13,000,000 through the progress on the last three scouts, we would slow them to \$1,000,000, with practically no return.

iral TAYLOR. That would reduce the appropriation \$4,000,000. It would waste \$4,000,000 with no return. Then we would take the rest of the money out of the submarines—that is simply my idea, but that is the way we would probably have to do.

tor HALE. So that really, aside from slowing up the work, we would lose \$2,000,000 absolutely?

iral TAYLOR. We would lose \$2,000,000 absolutely on those submarines alone, and we would also lose on these other vessels, because the overhead does not slow in proportion to the work. The overcharges run up. We made these tentative figures; and this reduction of the work down to the limit, alone, will probably cost us in the neighborhood of \$2,000,000—something like \$1,000,000 at the very least. We will have to over carry on the work at a normal rate. We will have to find if we slow down much more the waste cost will mount up fast. We rather stretched our conscience to the limit in stating that we would defer.

tor HALE. So that the waste would amount, in all, to \$3,000,000 00,000, and perhaps more?

iral TAYLOR. If we do not get that \$10,000,000 there will be an additional cost to the Government in the end of between \$3,000,000 00,000. That would be my offhand estimate.

tor HALE. Three or four million dollars, including the \$1,000,000?

iral TAYLOR. Yes, sir. You must remember, Senator, speaking of those aircraft carriers, we are not only very anxious to do some work on them because the Navy needs them, but that will be practically the only work that two of the largest shipyards in the country

tor HALE. How much did you ask for the aircraft carriers?

iral TAYLOR. \$11,000,000 at the slow rate. That will be practically the only work of two big shipyards of the country, both of which have a big overhead; and we will find it very hard to avoid a deal of waste under the conditions at the slow rate.

tor HALE. And without the \$10,000,000 you could only do \$1,000,000 worth of work on them?

already completed; and the two appropriations are not interchangeable.

Senator POINDEXTER. Work at the gun factory and navy ; includes work for the new ships, does it not?

Admiral McVAY. Yes, sir, but not under "ordnance and ordnance stores."

Senator POINDEXTER. No, but it includes that language of the appropriation, "armament for ships." There is no limitation as to what ships. It says "armament." It means any ships. That includes guns.

Admiral McVAY. I know, but when an appropriation is covered by one law, then money from another appropriation can not be used for that purpose; so that when you appropriate money for new ships, we can not take money that is appropriated for old ships and apply it to the new ships, or vice versa.

Senator POINDEXTER. It does not say old ships. That is an interpretation you place upon the law. But what I am asking for is some limitation, as to where you draw the line. You ask \$12,000,000 for ordnance, to maintain the work in the navy yards, which include the naval gun factory.

Admiral McVAY. Yes.

Senator POINDEXTER. How are you going to prevent that, or so limit it as to prevent it, from being available for supplying the new ships with guns?

Admiral McVAY. That is purely a question of accounting, and of expenditures. The accounts are kept quite separate, and when an order is placed for material by the bureau it is placed under its proper appropriation, and no money can be expended under any other appropriation for that purpose.

Senator NEWBERRY. The work is done for the new ships in the Washington Navy Yard?

Admiral McVAY. Some of it.

Senator NEWBERRY. Considerable of it; big gun work, is it not? There is considerable torpedo work for ships that is done in the Washington Navy Yard, and considerable work on your great guns is done there. It is simply a question of which appropriation it is to be charged to?

Admiral McVAY. It is purely a question of accounting. I might say, also, that when we place these orders under different appropriations, the bureau makes monthly an allotment under that appropriation for the work being carried on, and the expenditures are limited to the allotment.

Senator NEWBERRY. If I understand the situation, if the Secretary should decide to further reduce the allotment to ordnance to the absolute contract requirements of the ordnance for outside work. to the \$9,000,000 which is obligated for work to be done next year and material delivered next year, that, together with the amount you have asked for in the bill and which has been allowed by the House. will amount to some \$19,000,000, would it not?

Admiral McVAY. Those figures are correct, Senator.

Senator NEWBERRY. Yes.

Admiral McVAY. But they do not cover what would actually happen. What would actually happen would be that it would be practically impossible for us to continue work at the different

ance is \$24,350,000; cut down to \$16,218,000. There is a reduction of a little over \$8,000,000. It would take, in one case, one-fourth off ordnance; and you are taking one-third off hulls and machinery.

miral McVAY. No; we were also cut one-third. Do not overlook, Senator, that \$28,000,000 has already been taken away from ordnance, to start with; so that if you take any more, you will take it all.

ator PHIPPS. You mean the original appropriation was for the uses of ordnance, and it is now put in the general fund?

miral McVAY. Yes; but already, to start with, there has been \$28,000,000 taken from ordnance, and that is as much as ordnance can stand and continue the work which was covered by the Secretary's appropriation. So that if you talk about taking any more from ordnance you would bankrupt us.

ator NEWBERRY. Can you tell, in your outstanding contract, ordnance that will mature in 1923? This nine and a half million dollars, is that all for material, or how much of that is represented by work either inside of the yards or outside of the yards.

miral McVAY. That is practically all of it material that is being used. The outstanding contract—I doubt if I could divide between labor and material, because I have not their figures. If the work was done in a Government yard, I would be able to do it.

ator NEWBERRY. It is all fabricated material?

miral McVAY. Yes.

ator NEWBERRY. So that the labor is about one-half of it, as is the material?

miral McVAY. Yes, sir; about one-half of it. But that, of course, I do not know.

ator NEWBERRY. Could any of that be deferred—any of those contracts be deferred—without serious damage to the naval service?

miral McVAY. I do not think that it is wise to defer any of it. The matter has been gone into very thoroughly, and all that has been deferred has been deferred; and you will note that we have deferred everything on the aircraft carriers except preliminary work, and I figure that by getting an appropriation next year we will be able to finish the battery and equipment by the time the vessels are completed according to the present rate of progress.

So I figure that in case of emergency the bureau of ordnance can finish the guns and ammunition and equipment by the time the vessels could otherwise be completed if they were speeded up. All this has been very carefully considered.

ator POINDEXTER. What relation does the appropriation on page 29 of the bill, in which you ask an increase from \$9,520,000 to \$10,000,000, for ordnance, bear to this item of \$16,218,000 for ordnance?

miral McVAY. The \$16,000,000 comes under the appropriation for the use of the navy, armor and armament, or increase of the navy, ordnance; and that appropriation is available only for work on ships under construction.

The appropriation for ordnance and ordnance stores is available for general ordnance work of all stations, and for the repair and overhaul, or substitution of improved material on ships that are

Ordnance increase of the Navy appropriation balances.

Appropriation.	Actual balances Mar. 31, 1922.	Estimated balances July 1, 1922.
A. & A.	\$23,339,146	\$25,694,574
Ammunition.....	6,289,004	6,211,779
T. B. D. (Ord.).....	13,250,961	12,400,912
Total.....	42,879,111	44,307,265

These figures are based upon the assumption that all outstanding obligations against the appropriations named, other than those specifically allotted to the ships to be completed, are to be transferred to a special "scrapping" appropriation; and, further, that the appropriations named are to be reimbursed from the special "scrapping" appropriation for all expenditures incurred and payments made since February 1, 1922, other than those incurred and made specifically on account of the ships to be completed.

Senator POINDEXTER. I have no further questions.

Senator PAGE. Mr. Secretary, have you any further suggestions from your department?

Secretary DENBY. Nothing more, Mr. Chairman.

Senator POINDEXTER. Have you anyone here who can make a statement in regard to the necessity of making charts in the Hydrographic Office, so as to be independent of Great Britain in that matter?

Secretary DENBY. Yes; I think probably Admiral Coontz could make such a statement.

Senator POINDEXTER. I have here a letter from the Shipping Board addressed to me, Mr. Chairman, by mistake, as chairman of this committee. I will read it [reading]:

UNITED STATES SHIPPING BOARD,
Washington, May 5, 1922.

HON. MILES POINDEXTER,

*Chairman Subcommittee on Navy Appropriations,
United States Senate, Washington, D. C.*

MY DEAR SENATOR: There has come to the attention of the Shipping Board Senate Document No. 195, which recommends an additional naval appropriation of \$100,000 to enable the Hydrographic Office to make approximately 1,100 additional chart plates. It is our understanding in the matter that by the engraving of these 1,100 additional plates the United States Government will become entirely independent of any foreign supply of navigating charts.

The Shipping Board, being the largest individual owner and operator of vessels, is naturally very much interested in being able to obtain a complete supply of American-made charts for many reasons. The first of these is that Hydrographic Office charts cost approximately 50 per cent of the cost of foreign-made charts. Therefore, this item will represent a material saving to the American merchant marine.

Secondly, it is thought that quicker and more certain delivery could be made of charts produced locally than can be done from foreign sources. Along the same line, such charts from the Hydrographic Office would undoubtedly be corrected more nearly to date than would those emanating from foreign supplies. The American charts are corrected for all late information up to the moment they leave the office, thereby making it necessary for the mariners to make fewer hand corrections.

Most important of all, however, is the necessity of the United States becoming independent of all foreign countries for our navigating charts. Ordinarily there is no restriction on the purchase of charts from foreign sources, but in time of war, whether the United States be engaged in such war or not, or any time when relations between nations are strained, the supply of charts from foreign sources could and probably would be interrupted. This would naturally be a serious handicap to the operation of our vessels.

The Shipping Board, therefore, considered the matter at its meeting of May 4, 1922, and has decided that it should officially request the Senate Committee on Navy Appropriations to give favorable consideration to the request of the Navy that \$100,000

cluded in the appropriation for the fiscal year in order that the Hydrographic Office might carry out the work specified.

Very truly yours,

T. V. O'CONNOR, *Commissioner*.

APRIL 21, 1922.

The Hydrographer, Navy Department.

Secretary of the Navy

(Via Bureau of Navigation).

Subject: Dependence of United States vessels, naval and merchant, on foreign sources for nautical charts.

I desire to bring to your attention the dependence of the United States Navy and merchant marine on foreign sources for nautical charts. This condition has existed for many years, but since 1914 has become of greater consequence, because United States vessels, naval and merchant, are now visiting foreign ports oftener, consequent increase in the number of charts necessary.

This condition is indicated by the following figures:

Charts on issue January 1, 1922.

United States Hydrographic Office charts.....	2, 593
United States Coast and Geodetic Survey charts.....	642
British Admiralty charts.....	1, 109
Total.....	4, 344

This dependence on foreign sources for charts constitutes a serious naval menace, especially in an emergency, unless allied with Great Britain, the only country possessing the fleet would be unable to obtain these charts. This condition also results in an unnecessary expenditure of naval funds, on account of the cost of purchasing from foreign sources charts which the Government is unable to produce on its own vessels. Thus, in the current fiscal year the Navy Department has already expended \$16,000, with a probable additional expenditure of \$5,000 for the remainder of the fiscal year for British Admiralty charts. The cost accounts of the Hydrographic Office indicates that charts prepared by the Hydrographic Office can be furnished naval vessels for less than a half of the cost of charts purchased from the British Admiralty. The cost of British Admiralty charts has been recently reduced, which will make the expenditure for these charts greater in the future than it has been in the past.

Privately owned vessels in the United States and vessels of the United States Merchant Marine Board are under the same necessity as the United States Navy of obtaining charts from foreign sources. This was a great detriment to United States vessels in 1914 and 1915, when United States shipping began to expand and could not obtain United States sources necessary charts, for at that time Great Britain found it necessary, for various reasons connected with the war, to restrict the sale of its charts, and charts are ordinarily obtained by United States vessels. Even when the charts are obtained from foreign sources, the cost of charts prepared in foreign countries to the United States merchant marine is approximately double that of charts made by the Hydrographic Office, and there are numerous delays incident to obtaining an outfit of charts from foreign sources.

This dependence of the United States is well known abroad and has been used to the disadvantage of the United States by the agents for the British Admiralty charts and publications, as shown by the following, taken from a clipping from the London Daily Express, May 14, 1921, and circulated by J. D. Potter, agent for British Admiralty charts and publications:

"CHARTLESS UNITED STATES NAVY.

The United States Navy hydrographic records show that there are 1,200 points on the globe which can be reached only by the use of British Admiralty charts." Naturally this condition has been of considerable concern to the Hydrographic Office, and various hydrographers have described this condition to congressional committees and have recorded it in the annual reports of the Hydrographic Office. But it is particularly pertinent at the present moment on account of the determined effort made by the United States Government to foster a merchant marine and the importance of this condition places on the merchant marine.

7. This dangerous and humiliating condition can be easily remedied within a comparatively short time, due to the fact that charts once made can be easily and cheaply reproduced. The Hydrographic Office has developed methods since 1913 which has enabled it to reproduce over 1,000 charts which before that time could only be obtained from foreign sources. However, each chart plate prepared requires constant correction on account of new information received, and at the present time the technical force of the office can only keep revised and corrected the present stock of charts. Further reproduction work can not be undertaken without neglect of the present chart plates on hand. In other words, the office has reached the point of saturation as far as chart reproduction is concerned unless its force is increased.

8. A careful survey of the facilities and personnel of the office has been made, and I believe that the reproduction facilities are entirely adequate to reproduce the remaining 1,109 charts necessary to make the United States independent of foreign sources. I further estimate that with an additional appropriation of \$100,000 per annum for five years the personnel necessary to reproduce those charts could be obtained. At the end of five years it is believed that all the chart plates necessary to reproduce charts of all surveyed regions of the world outside of the United States would be completed and available for reproduction purposes. After that time it is estimated that only \$50,000 per annum would be necessary to revise and correct these chart plates for new information received.

9. To summarize:

(a) The United States Navy and merchant marine are dependent on foreign sources, mainly British, for 1,109 charts.

(b) This dependence is a source of danger in time of war and additional expense in time of peace, not only to the Navy but to the merchant marine.

(c) This condition can be remedied within five years at an annual expenditure of \$100,000, after which time an expenditure of \$50,000 would enable the office to revise charts for new information received.

(d) When the Hydrographic Office is prepared to make its own charts, it will save approximately \$20,000 a year for naval vessels and 50 per cent of the expenditure now being made by the United States merchant vessels for charts.

10. I consider that this most important work should be no longer delayed and therefore request that the following provision be added to the naval appropriation bill now pending in Congress:

"For the employment of draftsmen and such other technical employees as the Secretary of the Navy may deem necessary, to be employed only in the Hydrographic Office, for the construction, compilation, and reproduction of such nautical charts as are required to render the Navy independent of all foreign sources of chart supply and for the production and maintenance of metallic printing plates of such charts. \$100,000; *Provided*, That no person shall be employed hereunder, other than as a draftsman or such other technical capacity, at a rate of compensation exceeding \$1,800 per annum."

Memorandum on

There is furnished herewith a brief statement of the places that can not at present be reached by U. S. ships.

Baltic Sea: Gulf of Bothnia, Sweden.

Helsingfors, Kronstadt, Petrosavodsk.

Baltic, eastern part: Windau, Riga.

Baltic, southern part: Danzig, Gdansk.

The only important places in the Baltic.

Office charts are Kristiana and Bergen.

Great Britain (United Kingdom):

Lowestoft, Yarmouth, Hull.

Milford Haven, Fishguard, Pembroke.

Glasgow, Caledonian Canal, Barmouth.

Perth, Edinburgh, Berwick.

Berehaven, Limerick.

France: Boulogne, Jersey, Guernsey.

Spain: Malaga, Fort Africa.

Portugal: Oporto, Lagos, Faro.

Italy: Saradina Island, Corfu.

Durrës Bay (Albania).

Greece: Harbors in the Gulf of Corinth, Zante Bay, several harbors in Crete, practically all harbor charts in Grecian Archipelago, Gulf of Noeplea, Kalamaki, Piraeus (Athens), Island of Cyprus, several harbors.

Bulgaria: Karakatch Bay.

Turkey—Russia: Sea of Marmora, Black Sea (no charts whatever).

Minor: Smyrna, Mitylene Island, all outlying islands.

Morocco, and Algiers: Monaster, Tetuan Bay, Ceuta Bay, and Tangier, the latter opposite Gibraltar and very important.

Senegal (West Coast): Gambia River and approaches (important developments in 1918). Orange River.

Madagascar (East Coast): Many harbor charts East Coast of Africa and Madagascar.

Persian Gulf: Practically no charts of Persian Gulf and Tigris River. Includes the important city of Bagdad.

Coast of India: No charts of Gulf of Cambay nor Gulf of Kutch; 20 coast charts missing.

Coast of India: Eight coast charts missing; several harbor charts, including Cutch, missing.

Burma: All coast charts missing; many harbor charts missing, including Mandalay, Bassein River, Rangoon, Irawaddy River.

Malay States: Practically all coast charts missing.

Australia and New Zealand: No coast charts for Australia or New Zealand. Practically no charts, except harbor charts, of Perth, Port Adelaide, Sydney, Auckland, Wellington.

HISTORICAL SECTION, NAVY DEPARTMENT.

STATEMENT OF SENATOR HENRY CABOT LODGE, OF MASSACHUSETTS.

Senator LODGE. I only wished to speak to the committee about the amendment, which was omitted in the House, under existing law, as to the retention of what is known as the historical section in the Navy Department. It is very important that that work should be continued on, but I do not wish personally to press it. It exists now. It is nothing new.

Secretary DENBY. I had not realized that the provision was taken out.

Senator NEWBERRY. Secretary Daniels started it.

Senator POINDEXTER. It is the work of making up a roster?

Senator LODGE. It is the work of making up a roster. It will be very valuable, in my judgment, and I think it should be continued. The men who are there now are trained men and are very good men, and they have been there from the beginning.

Senator POINDEXTER. I would like to have a statement from the Secretary as to what is being done there and what has been done.

Secretary DENBY. I could make that statement at the next meeting. It has been going on since the war, because it is a record of the war.

Senator NEWBERRY. It was started by Secretary Daniels, to write a history of the war from a certain standpoint. It is of considerable importance to know the name of the historian, if a history is to be written.

Senator LODGE. One man that I know is Lieutenant Commander Clark and another is Lieutenant Knut.

Secretary DENBY. I will get a history of it and insert it in the record.

NAVY DEPARTMENT, HISTORICAL SECTION.

MAY 12, 1922.

Memorandum for the Secretary of the Navy.

Subject: The Historical Section, Navy Department.

1. During the war Admiral Sims and others called attention to the active work of the British and French in preparing documents for future historical purposes, and recommended that the Navy Department adopt the same procedure. Our Historical Section, however, was not established until June, 1918. The first appropriation for this specific purpose was that contained in appropriation act of March 1, 1919. Owing to the lateness of starting this work, it is still backward.

2. The function of the Historical Section as expressed in the appropriation act is "The collection or copying and classification with a view to publication of the naval records of the war with the Central Powers of Europe, including the purchase of books, periodicals, maps, and charts, and other publications, documents, and pictorial records of the Navy during the war."

3. In addition to certain clerical assistance, the act of June 4, 1920, authorized employment of three reserve officers in the section until July, 1922.

4. From its origin a regular naval officer has been in charge of the section; first a retired rear admiral, then a retired captain, then an active captain, and now a retired captain.

5. Owing to the backwardness of the work and to the need for an expression of policy to give direction to the activities of the section, the present officer in charge submitted to the Secretary on December 19, 1921, the following letter. The action of the Secretary of the Navy upon this letter is also quoted herewith:

HISTORICAL SECTION,
NAVY DEPARTMENT,
December 19, 1921.

From: Officer in Charge, Historical Section.

To: Secretary of the Navy.

Via: Director of Naval Intelligence, and Chief of Naval Operations.

1. In order to facilitate the work of this office it is deemed advisable at this time to decide upon general policies respecting its future activities. Approval of such now will permit the work to be planned and prosecuted in a more orderly and economical way than is possible under present conditions.

2. The small number of the personnel in the historical section limits its work principally to the preparation of necessary replies to inquiries from Members of Congress and civilians throughout the country. The increase in the volume of these demands has permitted recently the expansion of the section primarily for the purpose of building up the historical quantity of documents still remain distributed in many parts of the Navy. These require careful examination, and many of them require incorporation in the archives. This work of selection, arrangement, and indexing is a task of very considerable magnitude and will require a number of years with the present personnel of the section. The sooner it is completed, the more economical and efficient will be the result, since the work is facilitated by the presence of a large number of persons familiar with the incidents of war and with the records of the Navy still remain in the service.

3. The principal economy that would result from an early completion of filing and indexing is the saving in overhead charges. The person supervising this work could supervise efficiently a subordinate force. Of the present overhead approximately \$10,000 annually could be saved by the completion of the archives. Salaries of subordinate clerks building aggregate \$17,380. Probably this force can complete the work in 20 years. By doubling the subordinate force, without increasing the overhead, the work could be completed in half the time; about \$10,000 overhead for 10 years amounts to \$100,000. Similarly, if the subordinate force be quadrupled, the time would be reduced to five years, and the overhead increased \$150,000. These savings would be even greater if the supervisory force, some of whom are reserve officers, should be increased by promotion. The doubling of the present subordinate force would require additional clerks and require an increase in the current appropriation of \$19,000 to about \$35,000; and would permit archives to be completed in five years. Quadrupling this subordinate force would require a total appropriation of about \$70,000, and result in completion of archives in about five years.

4. The intention of Congress, as expressed in the appropriation act, is that historical selections shall be printed ultimately. If the selections of the War of the Rebellion, which involved the publication of...

ture collection, be followed in the present case, the result will be a poor return in proportion to its necessarily great cost. Its mere bulk will forbid intelligent inter-
 station, analysis, and digestion of the contents, and much the greater part can not
 ve of even casual interest to the average person. Of course there are many docu-

so interesting and valuable historically as to require their publication, if for no
 reason than to insure the preservation of their subject matter. The selection of
 from the bulk of the historical archives will be a process additional to the task
 in progress of building up these archives with documents retained from many that
 eliminated. The future second selection will result from the needs for reasonable
 economy in printing and rational utility of the volumes.

The need for making available to the country at large the sense of the historical
 hives as a whole will require a distillation of them in the form of a general history.
 ility and economy will both be served much better in this way than by the publi-
 cation of the entire archives. At present the historical section is preparing and pub-
 lishing a series of monographs on various aspects of the war with a view to satisfying
 ic interest. But these monographs are necessarily incomplete, and in some
 cts inaccurate, due to the sources from which they are drawn, for the archives
 themselves as yet far from complete. Furthermore, the publication of mono-
 phs of detached parts of the naval effort during the war can not fill the broader
 d for a comprehensive understanding of that effort as a whole. There appears
 be no satisfactory course but to undertake the preparation of an official history
 he archives reach approximate completion.

The nature of the work in progress and in prospect obviously requires a great
 ree of both specialization and permanence among the supervisory personnel of
 historical section. The last appropriation act authorized the retention on active
 y in this section of three reserve officers until July, 1922. Unless the work of the
 ion is to be handicapped seriously this authorization should be made permanent
 a way kept open for the retention of the officers mentioned.

The technical knowledge of officers must be combined with the special abilities
 he professional historian if a satisfactory naval history is to be produced. Hence
 strongly urged that previous recommendations of my predecessor and others for
 appointment of a well qualified civilian historian to the historical section be
 pted by Congress.

The following recommendations are therefore made for adoption as policies, to
 carried out as closely as circumstances permit, and where necessary being urged
 n Congress on appropriate occasions:

) Moderate expansion of the office force, as practicable under a limit of about
 000 annually in funds, with a view to completion of the work of archives building
 bout five years.

) Publication of a series of preliminary monographs upon certain of the Navy's
 cipal war activities. (This is now being done, with the object of satisfying
 lic demand for such matter at a reasonably early date.)

) Ultimate publication of a limited number only of the original archive documents,
 cted with reference to their special interest and importance.

) Ultimate preparation and publication of an official general naval history of the

) Maintaining permanence of the supervisory force of the office, most of whom are
 y specialized in the work.

) Continuation of present force of three reserve officers, and appointment of one
 ore well qualified civilian historians within about two years.

D. W. KNOX,
Captain, United States Navy.

NAVY DEPARTMENT,
Washington, February 21, 1922.

1: The Secretary of the Navy.

Officer in charge, historical section.

Chief of Naval Operations.

ect: The mission of the historical section.

rence: Your letter of December 19, 1921.

The recommendations made in subparagraphs 2, 3, and 4 of paragraph 8 of refer-
 (a) are approved and will be considered from this date as the mission of the his-
 al section. The recommendations made in subparagraphs 1 and 6 are approved
 have already been forwarded to the Judge Advocate General with the direction
 he will, when later directed, prepare the necessary legislation.

T. ROOSEVELT,
Acting Secretary.

AFTERNOON SESSION.

The subcommittee reconvened, pursuant to the taking the recess at 2 o'clock p. m., Senator Carroll S. Page presiding.

HYDROGRAPHIC OFFICE.

STATEMENT OF CAPT. FREDERIC B. BASSETT, JR., HYDROGRAPHER, UNITED STATES NAVY, AND COMMANDER J. P. PULESTON, UNITED STATES NAVY, AID TO HYDROGRAPHER

Senator PAGE. Proceed, Captain Bassett.

Captain BASSETT. I have a short statement, Mr. Chairman, that I wish to submit to the committee. [Reading:]

DEPENDENCE ON FOREIGN SOURCES FOR CHARTS OF THE WORLD.

NAUTICAL CHARTS, ETC.

(a) Nautical charts are maps on which is projected a portion of water and the land which it surrounds, or by which it is surrounded, and are intended for the use of navigators. On these charts are shown the latitude and longitude, lighthouses, buoys, radio station, variations of the compass, depth of water, character of the bottom, shoals, currents, sunken obstructions, compass-discolored water, rocks, wharves, prominent shore objects, and land.

Without charts corrected regularly from the latest information, directions or pilots (the guide book of the seas), and light lists, vessels cannot safely navigate the waters of the earth.

THE NECESSITY OF UNITED STATES INDEPENDENCE OF ALL FOREIGN SOURCES OF CHART SUPPLY.

(a) *To the United States Navy.*—(1) The Hydrographic Office of the Navy Department is charged by the act of June 21, 1868, with providing "accurate and cheap nautical charts for the use of all vessels of the United States and for the benefit and use of navigators generally."

In War.—Charts are highly important war materials, and hence the United States Navy should in time of peace prepare and acquire charts of the world, so that in time of war it will be able to depend from charts produced in the United States all the waters of the world of strained relations, chart supply from foreign countries would be cut off, leaving the United States Navy without means of navigation in those denied countries for which the Hydrographic Office is responsible.

In peace.—(2) The Navy should possess through the Hydrographic Office in time of peace its own plates of all the foreign ports of the world, so that its vessels can be supplied with Hydrographic Office charts independent of foreign Governments.

(b) *To the merchant marine.*—(1) From the acts quoted above it is seen that the Hydrographic Office is required to prepare charts for the merchant marine, which by the act of January 12, 1895, are to be sold to the merchant marine "at the cost of printing and paper." Naturally, for the United States merchant marine officials want to have the charts, more especially so as they are cheaper. In peace and war, they only get charts through the agents of the Hydrographic Office throughout the world, and the same arguments for our independence and peace for the Navy hold also for the merchant marine.

(2) If the merchant marine bill now before Congress passes, the Hydrographic Office charts will be enormous. It is estimated that hundreds of dollars a year will be saved our merchant marine if the Hydrographic Office can now start to reproduce plates not now available.

(c) *America's shortsighted policy.*—(1) The selling price, Government use, of Hydrographic Office charts is about one-third that of British Admiralty charts; hence it may be inferred that the cost

Government is in the same ratio. The United States Navy pays to the Government through the Admiralty chart agent in London, yearly, 20,000 for British charts. This money could be saved the United States Hydrographic Office had its own plates. This week a requisition has been for British hydrographic office charts for our Navy for £789.

The inability to obtain charts from foreign sources in case of strained relations in time of war, unless allied, puts the United States Government in a position for such an emergency. A country as rich and powerful as the United States should no longer be dependent on foreign sources of charts.

The difficulties in obtaining charts from Great Britain during the World War are best illustrated by quoting a memorandum from J. D. Potter, Admiralty agent for charts and nautical publisher, 145 Minories, London, E. D.:

" BRITISH ADMIRALTY CHARTS.

I am instructed to give notice that no supplies of Admiralty charts are to be sent without authority to any European countries, or subjects of these countries, with the exception of France, Russia, Greece, and Portugal. Applications for charts from all other parts of the world are to be submitted for consideration.

Further, no sales are to be allowed to any customer until the bona fides of the purchaser has been satisfactorily proved and a certificate stating the name of the purchaser, his nationality, service, and ship or shipping company, for which the charts are required, has been received.

" J. D. POTTER."

It was not an effort on the part of the British Admiralty to restrict the United States at all; they did everything that they could to help us. It was simply a precaution that they took, and a proper one, to see that their charts were not available for enemy use.

If that statement is made to show, if our relations with Great Britain at that time had not been friendly, what an absolute embargo they could have put upon our chart supply. The unavoidable delays in delivery were also great in many instances and there were considerable losses in transit.

For the reason that the language on the charts is English, the measures are the same, and the symbols nearly the same as ours, the Hydrographic Office of the United States has been able to use British hydrographic office charts, mostly as a basis for reproducing its charts of these areas. For the simpler cases the original chart is corrected and brought up to date, standardized to American practice, and when ready is graphed on glass, then on the zinc plates, from which the charts are printed.

Certain British Admiralty charts, and many Japanese, Chinese, Spanish, Italian, Swedish, Argentine, and other charts which, because of language, symbols, and symbols, do not permit of direct photography, have to be engraved on copper plates in the Hydrographic Office.

To show the importance that Great Britain places on being at all times independent of foreign sources of chart supply by having its own plates, it can be seen that even during the World War when her hydrographic office must have been taxed to the limit to supply European charts for the vessels of her fleet, the British hydrographic office continued to reproduce charts of the United States coasts and ports even though the United States was allied with Great Britain. What better argument can be produced for us to likewise become independent in the shortest possible time?

MEANS OF ACCOMPLISHMENT.

By surveys.—Charts are made from surveys. These surveys require a great deal of work on land and sea and are enormously expensive; but once the work is obtained the production of plates from which charts are printed is comparatively cheap. No one nation can make surveys of all the waters and harbors of the world: First, because it would be too expensive; and, second, because in smaller countries where a foreign Government may be able to obtain permission to survey, nations are very jealous of their surveying rights in their own country and will not allow foreigners to make these surveys. For example, it would be impossible for the United States to get permission to survey the harbor of Liverpool, and it would be just as difficult for the British Government to get permission to make a survey of the harbor of New York.

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(b) *To the merchant marine.*—(1) From the acts quoted above it will be seen that the Hydrographic Office is required to prepare charts for the merchant marine, which by the act of January 12, 1895, are to be sold to such merchant marine "at the cost of printing and paper." Naturally, for patriotic reasons, the United States merchant marine officials want to have United States charts, more especially so as they are cheaper. In peace and in war they can only get charts through the agents of the Hydrographic Office in various cities throughout the world, and the same arguments for our independence in war and peace for the Navy hold also for the merchant marine.

(2) If the merchant marine bill now before Congress passes, the demand for Hydrographic Office charts will be enormous. It is estimated that many thousands of dollars a year will be saved our merchant marine eventually, if the Hydrographic Office can now start to reproduce plates not now on hand.

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Government is in the same ratio. The United States Navy pays to the Government through the Admiralty chart agent in London, yearly, 20,000 for British charts. This money could be saved the United States Hydrographic Office had its own plates. This week a requisition has been for British hydrographic office charts for our Navy for £789.

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MEANS OF ACCOMPLISHMENT.

Hydrographic surveys.—Charts are made from surveys. These surveys require a great deal of work on land and sea and are enormously expensive; but once the data are obtained the production of plates from which charts are printed is comparatively cheap. No one nation can make surveys of all the waters and harbors of the world: First, because it would be too expensive; and, second, because in smaller countries where a foreign Government may be able to obtain permission to survey, nations are very jealous of their surveying rights in their own country and will not allow foreigners to make these surveys. For example, it would be impossible for the United States to get permission to survey the harbor of Liverpool, and it would be just as difficult for the British Government to get permission to make a survey of the harbor of New York.

Great nations wish to be independent of foreign sources of chart supply, and this has led nations to exchange charts through their respective hydrographic offices, which are in all countries, except Portugal, under their respective navy departments. Every nation has for many years used, and still uses as it sees fit, foreign charts as bases in reproducing its own plates therefrom, due credit being given in the chart legend to the source of information. This practice has been uncontested, but to make the concurrence a matter of record, the International Hydrographic Conference, at which 25 governments, including the United States, were represented, that met in London in June, 1919, adopted the following resolution:

"That it is desirable that every hydrographic office should be free to reproduce, except in facsimile, all publications of other hydrographic offices, provided that such reproduction shall have printed on it a due and proper acknowledgment of the original source from which it is derived."

This International Hydrographic Conference led to the organization of the present International Hydrographic Bureau, which is attempting to standardize chart production.

Great Britain, alive to her naval and merchant marine needs, now possesses the most complete set of chart plates for all the world, produced, first, from her own surveys, and second, by reproduction of the charts of other countries. This independence the Hydrographic Office seeks for the United States for naval and commercial reasons.

(b) *Preparation of the data*—Take the case of a foreign chart that makes photography possible. We do not simply change the legends on the chart, put on the proper acknowledgment and set it up and photograph it. No. That would not produce a proper chart. This chart must be investigated for latitude and longitude, and when these are accepted, the border scale is put on, titles altered to Hydrographic Office standards, and the magnetic variation of compass put on. It is then inspected for weak, heavy, or illegible details, brought up to date for latest Notice to Mariners and from Hydrographic Office documents and charts of same area of other governments. Frequently the area covered is increased by combining parts of other charts. When the draftsman has indicated all these changes and additions, it is viséed by the chief of section, and, when correct, the drawing, now looking like a patchwork quilt, is delivered to the photographer.

In the case of charts, such as Japanese, Chinese, Spanish, Swedish, French, German, Russian, etc., which, because of language, measures, symbols, or for any other reason, do not permit of being photographed, drawings have to be made, using the foreign chart as a basis, which, after bringing up to date, etc., have to be engraved on a copper plate.

(c) *Reproduction*.—(1) In the case of a foreign chart that can be photographed, the finished drawing is photographed to the desired scale on glass, and, in the case of large charts, in sections. The glass negative is then covered with asphaltum and the "negative cutters" go over them recutting the lines to make a clear negative. A specially treated zinc plate is then put in the printing frame with the glass negative and the photograph is reproduced on the zinc plate. After developing, the zinc plate is sent to the lithographic draftsmen, who go over it for errors, which, if found, are corrected on the zinc plate by hand. The plate is then etched, which makes it a permanent record. From this plate the "land tint" plate and the "lighthouse" plates are made. The plates are now sent to the pressroom for printing.

In the case of foreign charts, such as Japanese, Chinese, Spanish, Swedish, French, German, Russian, etc., which can not be photographed, the drawing is made, as stated above, which is sent to the Hydrographic Office engravers, and the whole chart is engraved on copper. From this copper plate, by a specially prepared paper, a transfer is made to a zinc sensitized plate, and the printing is done from that zinc plate. This is done because the printing of charts from the copper plate is slow—only about 80 charts a day—and it wears out the copper plate; whereas, if on zinc, about 1,200 an hour can be printed on the offset press, where the paper does not touch the zinc plates, but the printing is done from the rubber offset blanket, which gets its impression from the zinc plate.

(2) Reproduction is facilitated by a new process of photozincography, developed in the Hydrographic Office.

(3) By complete nautical information service in the Hydrographic Office that covers the entire world, and numbers among its contributors about 6,000 active sailing mariners.

By virtue of the adequate Hydrographic Office plant to reproduce and the additional charts.

By virtue of the possession by the Hydrographic Office of an adequate engraving plant to do this work.

Distribution.—(1) For Navy: Distributed by Hydrographic Office to all United States naval vessels free of charge.

For merchant marine: The charts having been printed are distributed in force of the Hydrographic Office to its 78 "chart agents" in all parts of the world where they are sold.

Cost of accomplishment.—(1) Although difficult to figure on cost and it is estimated that it will cost about \$500,000, which money should be appropriated in \$100,000 sums in each naval appropriation bill. Charts are continually undergoing changes, due to changes in lights, soundings, shoals, etc., and it is an expensive undertaking to make these changes on the spot. It is thought, however, that after the new plates are all made this year, the appropriation can be cut to \$50,000 a year.

ADVANTAGES TO UNITED STATES OF ACCOMPLISHMENT.

Complete independence of foreign governments of the United States and merchant marine for charts of all parts of the world.

Cheaper charts to the Navy Department for the Navy and cheaper charts for the merchant marine.

Quicker and more certain delivery to United States vessels, since all charts will be produced in the Hydrographic Office.

Charts of maximum accuracy when issued, due to shorter elapsed time between printing of corrected chart and delivery to United States Navy and merchant marine.

Increased sale of charts to merchant marine, which money reverts to Treasury.

CONCLUSION.

Hydrographic Office being charged with the duty of providing these charts, I feel it my duty to urge that this important work be no longer neglected.

Senator PAGE. In case you wanted new plates, how long does it take you to produce them?

Captain BASSETT. It depends on the amount of work to be done on the chart to prepare it for photography. It varies from two weeks to two months, according to the amount of drafting to be done.

Senator PAGE. For a single chart?

Captain BASSETT. Yes, sir; I brought here, to show the committee, one of the simplest of the engraved plates. These engraved plates take from three weeks to three months to make [exhibiting engraved plate of Corinto, Nicaragua]. This is a very simple one.

Senator HALE. That is on copper, is it not?

Captain BASSETT. Yes; it is on copper.

Assistant Secretary ROOSEVELT. You see, on a foreign chart they have to change all the names, if they are in a foreign language.

Commander PULESTON. For the simplest case, you can photograph the zinc; but many of the foreign charts have their soundings in meters, legends in foreign languages, and use different symbols, all that has to be changed to United States standards.

Captain BASSETT. I now exhibit a zinc plate.

Senator HALE. How many copies can be made from that zinc plate?

Captain BASSETT. Probably 100,000 copies; and then another zinc plate can be made from the archive print. This can always be photographed on zinc, and so you can make another zinc plate.

Senator POINDEXTER. Why can you not do this work with the force you have now?

Captain BASSETT. Because the office is absolutely saturated, keeping up with necessary corrections to existing H. O. plates. During the war we received very few notices of corrections, but now we are getting correction notices from all over the world. There have been also new surveys, and we are getting English, Japanese, Argentine, Chilean, and other new foreign charts. Argentine and Chile have started in actively making surveys, and the corrections that we get are in such volume that it is impossible for us to do much reproduction work. We have watched that work carefully ourselves, and have instituted a number of time-saving methods, and have improved the methods to the limit. We keep in touch with the Bureau of Standards, other government map and chart making institutions, and the latest practices in the engraving and lithographing industries. It is better to have the charts that we do issue correct, and to issue fewer of them, than to issue a larger number not properly corrected.

Senator NEWBERRY. You can make 40 of these a year, anyway?

Captain BASSETT. Yes, about 40, it will therefore take 25 years or more to complete a thousand of the 1,100 plates we have yet to reproduce, (indicating on diagram), a great many of them are most difficult.

Senator NEWBERRY. You have reproduced all the most important charts, have you not?

Captain BASSETT. No, sir, we have not.

Senator NEWBERRY. Why did they not reproduce the most important ones?

Captain BASSETT. They started in the other way, years ago. They commenced to do the simple ones, those that were the easiest and had the fewest corrections. That accounts for the large number of charts reproduced in the early days.

Senator NEWBERRY. I remember they told me that they were making the most important charts.

Captain BASSETT. Yes, some of them were the important ones, but not all. We cleared up in the Pacific Ocean, the Pacific islands, and the Japanese and Chinese coasts, and around the East Indies.

Senator NEWBERRY. Do you know when they first began reproducing foreign charts?

Captain BASSETT. About 1913. In revision I have to state that the United States has from the earliest times reproduced charts of other Governments. When I stated 1913, I had in mind when the production in great quantity due to the new process of photozincography began.

Senator PAGE. How much ought you to spend annually, to be conservative in your expenditures, from this time onward?

Captain BASSETT. To reproduce the charts we asked for?

Senator PAGE. To reproduce the charts most essential, and not for any surplus, but to get on with the work; what is the minimum with which you can get along?

Captain BASSETT. We have asked for \$100,000 and that is what we consider the minimum we can get along with in order to finish up the work in five years, and at that time be independent. This is not an appropriation which will last forever. It will last for five years, or until the work is finished.

Senator POINDEXTER. Do you want \$100,000 a year for five years, \$100,000 once?

Captain BASSETT. \$100,000 a year for five years, to make the thing complete. It is a very difficult matter to estimate exactly what it is going to cost. Our only object is to get this work done. If the committee considers that the work is of sufficient importance to do, it will take about that much money, and what is cut off must be on the finishing end and not on the beginning end. That is my way of looking at it.

Senator POINDEXTER. Did you present to the committee at any time when you were here before, the statement from the British publication, of the number of charts that the United States did not have? The article on "Chartless United States Navy."

Captain BASSETT. Yes, sir; in the original letter to the Navy Department requesting this \$100,000.

Senator POINDEXTER. Where is that data?

Captain BASSETT. I have it right here and will insert it.

APRIL 21, 1922.

Secretary of the Navy (Judge Advocate General).

Subject: Bureau of Navigation.

Subject: Dependence of the United States vessels, naval and merchant, on foreign sources for nautical charts.

Inclosure: Diagram showing sources of supply of charts.

I desire to bring to your attention the dependence of the United States naval and merchant marine on foreign sources for nautical charts. This condition has existed for many years, but since 1914 has become of greater consequence, because United States vessels, naval and merchant, are now visiting foreign ports oftener, with consequent increase in the number of charts necessary.

This condition is graphically shown on inclosure, and is also indicated by the following figures:

Charts on issue January 1, 1922.

United States Hydrographic Office charts.....	2,593
United States Coast and Geodetic Survey charts.....	642
British Admiralty charts.....	1,109
Total	4,344

This dependence on foreign sources for charts constitutes a serious naval weakness; because in an emergency—unless allied with Great Britain, the only country possessing charts of the world—the fleet would be unable to obtain these charts. This condition also results in an unnecessary expenditure of naval funds, on account of the necessity of purchasing from foreign sources charts which the Government is unable to furnish its own vessels. Thus, in the current fiscal year the Navy Department has already expended \$16,000, with a probable additional expenditure of \$5,000 during the remainder of the fiscal year, for British Admiralty charts. The cost accounting in the Hydrographic Office indicates that charts prepared by the Hydrographic Office can be furnished to our vessels for less than a half of the cost of charts purchased from the British Admiralty. The cost of British Admiralty charts has been recently increased, which will make the expenditure for these charts greater in the future than it has been in the past.

Privately owned vessels in the United States and vessels of the United States Shipping Board are under the same necessity as the United States Navy of obtaining charts from foreign sources. This was a greater detriment to our United States vessels in 1914 and 1915, when United States shipping began to expand and could not obtain from United States sources necessary charts, for at that time Great Britain found it necessary, for various reasons connected with the war, to restrict the sale of its charts, which ordinarily are obtained from United States vessels. Even when the charts are available from foreign sources, the cost of charts prepared in foreign countries to the merchant ma-

rine is approximately double that of charts made by the Hydrographic Office, and there are numerous delays incident to obtaining an outfit of charts from abroad.

5. This dependence of the United States is well known abroad, and has been used as an advertisement by the agents for the British Admiralty charts and publications, as is shown by the following, taken from a clipping from the London Daily Express of July 14, 1921, and circulated by J. D. Potter, agent for British Admiralty charts and publications:

"CHARTLESS UNITED STATES NAVY.

"The United States Navy hydrographic records show that there are 1,200 points on the globe which can be reached only by the use of British Admiralty charts."

6. Naturally, this condition has been of considerable concern to the Hydrographic Office, and various hydrographers have described this condition to congressional committees and have recorded it in the annual reports of the Hydrographic Office. But it is particularly pertinent at the present moment on account of the determined effort being made by the United States Government to foster a merchant marine and the handicap this condition places on the merchant marine.

7. This dangerous and humiliating condition can be easily remedied within a comparatively short time, due to the fact that charts once made can be easily and cheaply reproduced. The Hydrographic Office has developed methods since 1913 which have enabled it to reproduce over 1,000 charts which before that time could only be obtained from foreign sources. However, each chart plate prepared requires constant correction, on account of new information received, and at the present time the technical force of the office can only keep revised and corrected the present stock of charts. Further reproduction work can not be undertaken without neglect of the present chart plates on hand. In other words, the office has reached the point of saturation as far as chart reproduction is concerned unless its force is increased.

8. A careful survey of the facilities and personnel of the office has been made, and I believe that the reproduction facilities are entirely adequate to reproduce the remaining 1,109 charts necessary to make the United States independent of foreign sources. I further estimate that, with an additional appropriation of \$100,000 per annum for five years, the personnel necessary to reproduce those charts could be obtained. At the end of five years it is believed that all the chart plates necessary to reproduce charts of all surveyed regions of the world outside of the United States would be completed and available for reproduction purposes. After that time it is estimated that only \$50,000 per annum would be necessary to revise and correct these chart plates for new information received.

9. To summarize:

(a) The United States Navy and merchant marine are dependent on foreign sources, mainly British, for 1,109 charts.

(b) This dependence is a source of danger in time of war and additional expense in time of peace, not only to the Navy but to the merchant marine.

(c) This condition can be remedied within five years at an annual expenditure of \$100,000, after which time an expenditure of \$50,000 would enable the office to revise charts for new information received.

(d) When the Hydrographic Office is prepared to make its own charts it will save approximately \$20,000 a year for naval vessels and 50 per cent of the expenditure now being made by the United States merchant vessels for charts.

10. I consider that this most important work should be no longer delayed, and therefore request that the following provision be added to the naval appropriation bill now pending in Congress:

"For the employment of draftsmen and such other technical employees as the Secretary of the Navy may deem necessary, to be employed only in the Hydrographic Office, for the construction, compilation, and reproduction of such nautical charts as are required to render the Navy independent of all foreign sources of chart supply and for the production and maintenance of metallic printing plates of such charts, \$100,000: *Provided*, That no person shall be employed hereunder other than as a draftsman or such other technical capacity at a rate of compensation exceeding \$1,800 per annum."

F. R. RANSFET.

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
April 21, 1922.

om: Chief of Bureau of Navigation.

Secretary of the Navy.

Subject: Dependence of United States vessels, naval and merchant, on foreign sources for nautical charts.

1. Forwarded. The bureau concurs fully in the above, as stated by the hydrographer, and earnestly recommends the Congress be asked to make the appropriation required to enable our Navy and merchant shipping to be rendered independent of foreign sources of supply for charts.

THOS. WASHINGTON.

om: Secretary of the Navy.

Director of the Bureau of the Budget.

Subject: Budget, 1923.

Reference: H. R. 11228, as read in the Senate of the United States April 22, 1922.

1. It is recommended that the following be inserted on page 20, between lines 10 and 11 of reference for the reasons stated by the hydrographer in his letter, 1016, of April 21, 1922, which is transmitted for your information:

'For the employment of draftsmen and such other technical employees as the Secretary of the Navy may deem necessary, for the construction, compilation, and reproduction of such nautical charts as are required to render the Navy independent of all foreign sources of chart supply and for the reduction and maintenance of metallic printing plates of such charts, \$100,000: provided, That no person shall be employed hereunder, other than as a draftsman or such other nautical capacity, at a rate of compensation exceeding \$1,800 per annum.'

2. This is a new item in the pending appropriation bill and is in the public interest.

3. As this matter is now before the Senate I have taken the liberty of sending copy of this letter to the chairman of the Senate Committee on Appropriations for his consideration.

EDWIN DENBY.

Senator PAGE. If we wished to economize extensively, how much would it cost us to buy those charts of foreign countries?

Captain BASSETT. It would cost at least, for the Navy alone, \$20,000 a year. The merchant marine is not considered in that cost at all. I hope the committee will consider that this \$100,000 requested would not be a loss. When we get these extra plates we will sell more charts. In 1920, when the Shipping Board was doing an active business, we received from the sales of charts and nautical publications \$108,000, so a large percentage of money appropriated for the Hydrographic Office is returned to the Government. The sales will therefore increase, and it will be a money-saving proposition in the end if this recommendation for \$100,000 is approved. We have to prepare these plates before we can supply these charts for sale to the merchant marine.

Senator PHIPPS. What do your revenues amount to now from the sale of charts?

Captain BASSETT. In 1920 the amount was \$108,000, and in 1921 \$1,000. What it will be this year I do not know.

Senator PHIPPS. How much of that would you say would be profit to the Government, assuming that the Government had to have these charts anyway for its own use, for the Navy? Say you sold the charts for 50 cents or a dollar each—whatever it is—how much does it really cost you?

Commander PULESTON. The cost is 20 cents, as near as you can figure it. It is 7 cents for the paper, and as near as we can figure the overhead, it makes the cost around 20 cents a chart.

rine is approximately double that of charts made by the Hydrographic Office and there are numerous delays incident to obtaining an outfit abroad.

5. This dependence of the United States is well known used as an advertisement by the agents for the British publications, as is shown by the following, taken from the London Daily Express of July 14, 1921, and circulated for British Admiralty charts and publications:

" CHARTLESS UNITED STATE

**"The United States Navy hydrographic re-
points on the globe which can be reached on
charts."**

6. Naturally, this condition has been of great importance to the Hydrographic Office, and various hydrographic congressional committees and have recorded the same in the Hydrographic Office. But it is particularly important in the count of the determined effort being made to foster a merchant marine and the development of the merchant marine.

7. This dangerous and humilia-
a comparatively short time, due
and cheaply reproduced. The F
1913 which have enabled it
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words, the office has re
tion is concerned unless

8. A careful survey and I believe that the remaining 1,109 foreign sources. I \$100,000 per annum charts could be chart plates need outside of the purposes. After necessary received.

9. To sv: ASSETT. 1921.

9. To sv: ASSETT. 1921.

(a) Th sources. MALE. And you got \$108,000 back?

(b) "A BASSETT. In 1920.

expens for HALE. How much did you get last year (1922)?

(c) tain BASSETT, \$61,000. For 1922 we had about the same
ture amount of money as the year before, when we received from sales
offic \$1,000.

Q. Senator HALE. You had substantially \$520,000 appropriated?

"Captain BASSETT. Yes, sir; we had \$537,760, and that includes \$50,000 allotment for printing we got from the Navy and \$105,000, "Ocean and lakes surveys."

Senator HALE. How much appropriation is there in this bill for this?

Captain BASSETT. The whole thing is \$507,000.

Senator HALE. Counting this \$100,000?

Captain BASSETT. No, sir; without that. The total will be \$607,000.

Senator HALE. So that it is more than you have ever had before?

Captain BASSETT. We have had more than \$507,000, plus \$100,000 (7,000) we are asking for. In 1920, counting pay of reservists sales money which was then available, we had \$625,142.

Senator HALE. When did you have more than \$507,000?

Captain BASSETT. I say we have had more than \$507,000.

NOTE.—In revision, I submit: 1920. \$625,142; 1921. \$527,152; 1922. \$537,760. and not considered "Pay of reservists" or "Sales."

Senator HALE. This is the largest appropriation you have ever, this year, without this \$100,000?

Captain BASSETT. No, sir. There has been a slight reduction. The last appropriation I remember is \$537,000, and this year it is \$1,000, and we are asking \$100,000 more.

Senator HALE. Last year it was less than \$507,000?

Captain BASSETT. No; last year it was \$537,000.

Senator HALE. That is, you are asking for less this year, without \$100,000, than you had before?

Captain BASSETT. Yes; less than we had last year. And, in addition to that, we are now asking for \$100,000 to do this new work. The number of charts we are asking to reproduce is 1,109, and the number are now making is 2,593. If we get \$507,000 to make 2,593 charts, it is not a fair request to ask for \$100,000 to reproduce 1,109 new charts?

Senator HALE. Have you all these facts so that we can have them before us in considering this bill?

Captain BASSETT. Yes, sir; I can put in the hearing some of these facts. They are as follows:

. Including ocean and lake surveys, reservists and sales.....	\$625, 142
. Including ocean and lake surveys and sales.....	527, 152
. Including ocean and lake surveys.....	537, 760
. (Originally submitted) including ocean and lake surveys (no sales money available).....	\$507, 000
To make United States independent of foreign sources.....	100, 000
	<hr/> 607, 000

Senator PHIPPS. My question was to determine how we would come on our sales to the merchant marine if we doubled our selling price on the charts.

Senator PAGE. He has answered that.

Senator PHIPPS. That is, if we had \$108,000 one year and \$61,000 next, if you take the average it is \$80,000, and it is fair to assume the receipts would not fall below that on an average, and we might have a revenue, presumably, of \$80,000 to go toward this expenditure; or if we had some means of doubling the selling price of charts that we furnish to the merchant marine. We are told that the merchant marine prefers to have our charts when they are available, and I presume that would still remain the case even if we doubled our price.

Captain BASSETT. Yes.

Senator POINDEXTER. I had a letter from the Shipping Board urging this appropriation.

Captain BASSETT. We would save the Shipping Board, on the operating basis of 1920, approximately \$100,000 a year, as the British Admiralty charts cost nearly twice what ours cost. It will be a fair business proposition. If we took in \$108,000 one year and \$61,000 another year, on the sale of 2,593 charts, it is fair to assume

that if we can furnish 1,109 more charts that the receipts will increase accordingly, if the Shipping Board is going to be as active as it was in 1919-20, and if the Congress passes the merchant marine bill it probably will. If this recommendation is approved we will be simply investing \$100,000 in order that we may in the very near future avoid expenses for foreign charts now necessary for both the Navy and the merchant marine. If I can make that clear, that is all I have to say.

Senator NEWBERRY. I was greatly interested in your saying that the Hydrographic Office when you took charge of it was working along lines that you did not approve of—that is, taking the easiest work first.

Captain BASSETT. I did not wish to criticize my predecessors; I was speaking of the facts as presented to me—that they did start in to reproduce many of those easiest charts first. It so happens that many of those easier charts were charts that were essential to us in our military program.

Senator NEWBERRY. You said that they started to reproduce those charts in 1913.

Captain BASSETT. Yes; that is when they started to reproduce them in quantities, using the new process of photozincography.

Senator NEWBERRY. Do you not know that they reproduced European charts in 1904 in the Hydrographic Office?

Captain BASSETT. Yes, sir. In revision I enter the following information:

1900 1913:

British Admiralty charts reproduced by Hydrographic Office.....	607
Average per year.....	46

In 1913 the process of photozincography was developed, and the work of reproduction has been simplified.

Senator NEWBERRY. I was just trying to get at when it started.

Captain BASSETT. But I meant since this new process of photozincography was perfected.

Senator NEWBERRY. I do not know anything about the new process. I wanted to get on record clearly when you started; and when I asked you when they started to reproduce those charts you said in 1913. You have been reproducing foreign charts in the Hydrographic Office almost from the day the office started, have you not?

Captain BASSETT. Yes.

Senator NEWBERRY. I know some of the officers thought they ought to reproduce some of the foreign charts; and they have reproduced how many—about 1,200?

Captain BASSETT. In revision I find that the office since its start has reproduced about 2,200 plates.

Senator NEWBERRY. And the 1,100 that have not been reproduced are the outlying charts and harbor charts that those in the office before you thought were not as necessary as the work they did?

Captain BASSETT. Yes, sir; but they include charts of many important places.

Senator NEWBERRY. Here is a list of harbor charts. Is it not true that every vessel that enters a harbor is in ordinary circumstances authorized to, and does, take on a local pilot?

Captain BASSETT. The list you refer to includes other charts than harbor charts. Naval vessels are authorized to take pilots, but it is

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

MONDAY, MAY 29, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10.30 o'clock a. m., Senator Carroll S. Page presiding.

Present: Senators Page (chairman), Poindexter, Hale, Phipps, and Newberry.

STATEMENT OF HON. EDWARD E. DENISON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS.

NAVAL ACADEMY, CIVILIAN PROFESSORS.

Representative DENISON. Mr. Chairman, my only object in appearing before this committee is to make a short statement in regard to the appropriation for civilian professors at the Naval Academy. I have no personal interest in the matter whatever, but I was on the Board of Visitors for the academy last year, and, in connection with my duties as a member of the Board of Visitors, I made some investigations and study of the question of civilian professors at the academy, and in the performance of that work I became acquainted with the work that had been done by other Boards of Visitors in the past three or four years. I happened, by accident, to notice the statement made by the superintendent of the academy before the House Committee on Appropriations, and it aroused my interest; and, then, I happened to see the statement which he made before this committee, and I felt like I ought to come before you and make a statement in that connection. The superintendent of the academy came before the House committee and before this committee and recommended the removal of 78 of the civilian professors from the academy's faculty. I think there are now 116 civilian professors, and between 140 and 150 naval officials connected with the academy as instructors or teachers. It seemed to me that the immediate removal of as many as 75 or 78 of the civilian professors was somewhat revolutionary, and would be injurious to the academy as an educational institution; and, knowing the history of that same policy, I have opposed it and I think it ought to be opposed.

This same question, Mr. Chairman, came up in 1913—the very critical question. At that time Captain Gibbons, I believe, was superintendent of the academy. He came before the committee and urged in to carry out a policy of getting rid of the civilian professors; the matter was fully presented to the Congress at that time,

graphic Office is short of, but coasting charts of such important areas as the coast of India, Australia, New Zealand, the Black Sea, and portions of the Baltic and North Seas.

Senator NEWBERRY. You can buy charts of any harbor in the world?

Captain BASSETT. Yes.

Senator NEWBERRY. In any quantities you want?

Captain BASSETT. Yes; when you can get them. Sometimes when you want them most you can not get them, and there is always delay, and sometimes losses.

Senator POINDEXTER. I understand the idea is to make this country independent.

Captain BASSETT. Yes. Great Britain is independent of any other country. Great Britain has no more right to chart independence than the United States. If we can reproduce these plates at a cost of \$100,000 a year for five years we will then be absolutely independent, and our merchant marine can then buy United States charts for all parts of the world.

We have already published 58 United States volumes of Sailing Directions and should have United States charts to use with them.

Senator NEWBERRY. You would not be independent then, because we are entirely dependent upon foreign countries for every correction we get.

Captain BASSETT. Of course, we get corrections from every country in the world, and from every source available. England and all other countries are also dependent on the United States and on all other sources for the corrections to their charts, in the exact same way.

Senator NEWBERRY. Every country that publishes charts publishes bulletins?

Captain BASSETT. Yes, sir; the principal countries do.

Senator PAGE. You receive copies of all the charts that are published?

Captain BASSETT. Yes; we are on the mailing list for two complimentary copies of every chart published by every Government.

Senator HALE. I have had the clerk of the committee foot up the items for the Hydrographic Office for this year and last year. Did you have any deficiency appropriation last year?

Captain BASSETT. No, sir; there was no deficiency appropriation.

Senator HALE. The figures show that the House bill appropriates \$417,730; and last year you said it was \$520,000.

Captain BASSETT. There is \$105,000 there that does not show on that, for "Ocean and Lake Survey." We have vessels making surveys in foreign countries now, and there is another \$105,000 there.

Senator HALE. Last year's appropriations were \$432,760, and I suppose the same would apply there, would it, as to the "Ocean and Lake Survey" appropriation?

Captain BASSETT. Yes, sir; that was \$105,000 last year; this added to \$432,760 makes \$537,760.

Senator HALE. That is all.

Senator PAGE. Is there any other Senator who would like to ask any further questions? If not, we will hear from you, Mr. Secretary. I think you have Admiral McVay next on your list.

(Thereupon, at 2.30 o'clock p. m., the subcommittee went into executive session, at the conclusion of which the subcommittee adjourned until Monday, May 29, 1922, at 10.30 o'clock a. m.)

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

MONDAY, MAY 29, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10.30 o'clock a. m., Senator Carroll S. Page presiding.
Present: Senators Page (chairman), Poindexter, Hale, Phipps, and McBerry.

STATEMENT OF HON. EDWARD E. DENISON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS.

NAVAL ACADEMY, CIVILIAN PROFESSORS.

Representative DENISON. Mr. Chairman, my only object in appearing before this committee is to make a short statement in regard to the appropriation for civilian professors at the Naval Academy. I have no personal interest in the matter whatever, but I was on the Board of Visitors for the academy last year, and, in connection with my duties as a member of the Board of Visitors, I made some investigations and study of the question of civilian professors at the academy, and in the performance of that work I became acquainted with the work that had been done by other Boards of Visitors in the three or four years. I happened, by accident, to notice the statement made by the superintendent of the academy before the Senate Committee on Appropriations, and it aroused my interest; and, then, I happened to see the statement which he made before this committee, and I felt like I ought to come before you and make a statement in that connection. The superintendent of the academy came before the House committee and before this committee and recommended the removal of 78 of the civilian professors from the academy's faculty. I think there are now 116 civilian professors, between 140 and 150 naval officials connected with the academy as instructors or teachers. It seemed to me that the immediate removal of as many as 75 or 78 of the civilian professors was somewhat revolutionary, and would be injurious to the academy as an educational institution; and, knowing the history of that same policy, I opposed it and I think it ought to be opposed. This same question, Mr. Chairman, came up in 1913—the very critical question. At that time Captain Gibbons, I believe, was superintendent of the academy. He came before the committee and urged in to carry out a policy of getting rid of the civilian professors; the matter was fully presented to the Congress at that time,

and Congress adopted the adverse view, and stopped the carrying out of that policy; they put in the appropriation bill for that year, 1913, a provision to prevent its being done, which I will read, with your permission. There was appropriated that year a certain amount for the civilian professors at the academy, and Congress put into the appropriation bill this provision:

That no part of any sum in this act appropriated shall be expended in the pay or allowances of any commissioned officer of the Navy detailed for duty as an instructor at the United States Naval Academy to perform duties which were performed by civilian instructors on January 1, 1913.

That provision was put in the bill to prevent the carrying out of the policy which the superintendent had declared was his policy and had urged before the Congress. He wanted to get rid of all the civilian professors and would have done so but for this provision.

Now, Congress inserted that same provision in every appropriation bill for five years—1913, 1914, 1915, 1916, and 1917—in identical language.

It was left out in 1918 for the reason that we were then engaged in war, and the committee concluded that there was no necessity for putting it in because of there being a demand and need for all the naval officers at sea and there was no danger of the policy being carried out at that time: so that language was left out of the appropriation bill for 1918 and since then.

In 1917 the Board of Visitors was composed of men of a very high type—the presidents of a number of the best educational institutions of the country, and professors in such institutions—and they made a study of the academy; and almost the same board was continued—I mean the same board so far as they were appointed by the President was continued—for, I think, three years. They made a study of the situation at the academy and made certain recommendations to the Secretary with a view to improving the personnel of the faculty and the conduct of the academy as an educational institution.

Among other things they recommended that there be a more definite policy adopted as to the permanent employment of civilian professors, as to their tenure of office, a system of proper promotion for certain lengths of service; and they made a number of recommendations of that character, all of which, with one exception, were approved by the then Secretary of the Navy. The only recommendation of the board which was not approved was that which provided for the retirement, after a certain number of years' service, on pension. That policy has not yet been approved by the Secretary of the Navy. Otherwise the recommendations of the board of officers was approved and put into effect. It called for the employment of civilian professors for a term of five years. In other words, they were employed for that time and given a contract for five years, so that they would know that there was at least some permanency in their work when they would leave other institutions and go there to teach.

Then there was provided, as I say, a system of promotion.

Now, the present superintendent was assigned to the academy last year, and he immediately began sweeping away of all of the plans that has been formulated. He immediately cancels all that action of the former Secretary of the Navy, and says that these men

ld be employed for only one year; the plan originally approved he Secretary provided that when it was desired to drop or dis-

with the services of any of the civilian professors they should notified at the beginning of the second term of the year at the of which they were to be dismissed; but the present superintend-recommended that they be dismissed immediately upon notice, out the six months' notice as provided by the former arrange-t, and he has made other recommendations of that kind.

hen he recommends that the civilian professors shall be gotten he begins his policy by recommending a decreased appropriation s to compel the disposal of 78 of them. That is only the begin-g. His intention, as far as we can gather it, is to eventually dis-se with practically all of the civilian professors, and to put the lemy entirely under naval instructors.

enator HALE. On what do you base that statement?

epresentative DENISON. I base that, Senator, upon the statements ; have been made by some of the naval officers to men with whom ave talked, that this is the beginning of the policy to get rid of the civilian professors.

enator HALE. Is that just rumor, or has Admiral Wilson made such statement as that?

epresentative DENISON. I do not know that Admiral Wilson has le such a statement, but one of the other admirals has made it to ties with whom I have talked. I will state that I got that infor-ion from President Sills of Bowdoin College; I would not want uote him, but if the committee should desire to get further infor-ion on that subject, of course they could get Doctor Sills to come ore the committee. Doctor Sills was on the board of visitors with last year. I was appointed by the Speaker of the House as one he board, and Doctor Sills was appointed by the President. He been on the board for several years, and had made a careful and staking study of this subject.

dmiral Wilson in his statement before your committee said that wanted to get the Academy back to pre-war conditions; and he ed that in 1916 and 1917 the number of civilian professors and ructors was very greatly increased, due to war conditions; he aded to explain the increase entirely on the ground of war condi-s, that there was such an increase in the number of civilian profes-rs at the Academy. As a matter of fact, not only was the ber of civilian instructors increased in the Academy at that , but the naval instructors were likewise increased in number largely at that time, and it was not due primarily to war condi-s, but it was due to the fact that the Congress increased the num-of cadets at the Naval Academy. In 1917 the number of cadets increased twice, and in 1918 again, so that whereas before the there were only two cadets from each congressional district, e now are five cadets from each district; so that there would ally be required more than twice the number of civilian profes-if the same proportion was continued; but that the superintend-did not refer to at all in his statement before this committee.

he superintendent also recommended this change as a matter of omy. Well, I do not think it is economy at all to dispose of the ian professors at the Academy and substitute naval officers for

them. It is just the contrary, as I see it, and I will state my reasons for that statement.

PAY OF NAVAL PROFESSORS.

The pay of naval officers is as follows—I am furnished these figures by the Bureau of Navigation: The pay of a commander, with such allowances as are given over there, is \$6,561.71 a year, and there are 14 commanders at the academy.

The pay of a lieutenant commander runs from \$4,875.65 to \$4,975.65 depending upon the length of service; and there are 45 lieutenant commanders at the Academy.

Senator POINDEXTER. In this statement based on the new pay bill?

Representative DENISON. No; it is based on the information that was furnished me by the Bureau of Navigation.

Senator POINDEXTER. It is based on the 1908 basis, is it?

Representative DENISON. I just called up the Bureau of Navigation, Senator, and I said that I would like to know what is the pay of those who are now teaching at the Academy.

Senator POINDEXTER. There are two bases. One is the 1908 basis, and the temporary one that is now in effect; and the one that will be in effect under the new pay bill.

Representative DENISON. Without definite information. I would assume that this is the one which is now in effect.

Senator POINDEXTER. Yes.

Representative DENISON. The pay of a lieutenant runs from \$3,250 up to \$4,150, depending upon the number of years in the service.

The pay differs according to five-year periods of service, and there are 91 lieutenants now connected with that institution.

PAY OF NAVAL PROFESSORS.

The highest paid civilian professor there gets \$4,300 a year, as compared with the highest naval officer's salary of \$6,561.70; and the pay of an associate professor is \$3,500, of an assistant professor \$3,200, and of an instructor \$2,800; so that the compensation of civilian professors as compared with naval officers who are sent to the Academy, is only a little over one-half—between one-half and two-thirds—as much.

Therefore, dismissing these civilian professors and substituting naval officers will not be a matter of economy.

Senator PAGE. Do you think they bring about the preparation of just as good officers?

Representative DENISON. I was just coming to that.

Senator PAGE. Yes.

Representative DENISON. In my judgment it is not a debatable question. Naval officers are assigned to instruct at the academy without any preparation whatever for instruction. They go to sea after they graduate, as a general rule, and their time is occupied with their practical duties while at sea. They have no training for teaching or instructing, and I think it is a mistake to undertake to give these young men at the academy an education through naval officers. I do not mean to criticize or speak disrespectfully of naval officers. There are none that are higher than our own in their profession. But I am speaking about them as teachers.

Take the admiral, for instance, who is now superintendent of the academy. He failed in his first year at the academy and was reappointed, and I think he himself has made the statement that he had very average record there as a student, and he was not back to the academy, my information is, in over 40 years until he went back as superintendent of the institution. Yet his policy is not to advise men who are educators or who know anything about the method of running such an institution, but he comes in there and without consulting the academic board in any particular he recommends these sweeping changes.

They have over there at the academy an academic board consisting of the heads of the different departments. I think there are 11 members of that board.

Senator POINDEXTER. The superintendent is a member of it?

Representative DENISON. Yes; he is a member of it, and then the heads of the departments of English and mathematics and navigation, and so on, are members of it. I think there are 11 members of it. I will not be certain about that.

Senator HALE. How many of those are naval officers?

Representative DENISON. I am not able to state.

Senator POINDEXTER. All of them except one, probably.

Representative DENISON. I am not able to state that; but at any rate there is that academic board, and the policy of the institution is supposed to be established by the superintendent in consultation with the academic board. That is the theory and has been heretofore in practice. But the present superintendent, without consulting the academic board or informing them of his policy or his intention, recommends these sweeping changes.

My judgment is that it will absolutely ruin the institution as an educational institution. I am interested in it because I am interested in the academy, and I have five boys over there to whom and to whose parents I promised that we would give them a college education as well as a naval education. It is the cradle of the future Navy, and this policy is carried out it will become a mere naval training school instead of an educational institution, in my judgment.

METHOD OF ASSIGNING NAVAL OFFICERS AS INSTRUCTORS.

These naval officers who are sent there are simply, when they are taken to shore duty from sea duty, assigned to the Naval Academy. They are not assigned by reason of any special qualifications as instructors, although the admiral states——

Senator NEWBERRY. Why do you say that?

Representative DENISON. I say it because it is a fact, Senator.

Senator NEWBERRY. That is not my experience.

Representative DENISON. Well, the admiral, I think, has stated that he does not have any choice as to who are sent there, although those who are sent he tries to select those who are best qualified to do the work.

Senator NEWBERRY. Then you modify the statement a little bit? They are selected, so far as possible, for their ability, if the admiral exercises discretion, if he selects, as you say. Your statement is correct, then, to a slight modification, at any rate?

Representative DENISON. Well, perhaps I had better make a slight modification; but I think the evidence shows—I am trying to recollect the testimony. Perhaps I had better not try to quote that without rereading it; but I have seen the statement in some of the testimony that naval officers were not sent there because of any special qualifications; they are assigned to shore duty and are sent to the academy to teach, and they stay there either two or three years and go back to sea duty.

Senator NEWBERRY. As a matter of fact, oftentimes they are taken right out of the fleet for that express purpose of teaching.

Representative DENISON. You have some information that I have not, then.

Senator NEWBERRY. This is the fact.

Assistant Secretary ROOSEVELT. Here is an example right here: Admiral Robison, who is here present, was taken from the fleet for that reason.

Senator NEWBERRY. Yes.

Representative DENISON. I do not want, of course, to state anything that is not absolutely accurate. That is different from the information that I have.

Senator POINDEXTER. In what respect different? I do not understand the issue. You do not mean to deny that officers are taken from the fleet or taken from wherever they may happen to be serving when they are detailed to the academy? You do not claim that there is any rule that an officer serving with the fleet can not be detailed to the academy?

Representative DENISON. Not at all.

Senator POINDEXTER. That is what Senator Newberry states. Then you both agree on it.

Representative DENISON. I do not mean to deny that there may be some officers taken from the fleet for the purpose of assignment to the academy. I make the statement that that is not the rule.

Senator NEWBERRY. What is the rule? Can you quote the rule?

Representative DENISON. I think the rule has been, heretofore, that when men have served their required time at sea duty, and they are entitled to shore duty, when that time arrives those who are available may be assigned, any of them, to the Naval Academy. I think that is the rule.

Senator NEWBERRY. I do not know of any such rule.

Representative DENISON. Well, if I am not accurate about that, I, of course, am glad to be corrected there.

Senator NEWBERRY. Would you mind going back to something that you stated a little while ago, that was not clear to me?

Representative DENISON. No, sir.

Senator NEWBERRY. You stated that the reduction of civilian professors would not introduce any economy. Why would it not? If a number of civilians are eliminated from the pay roll of the Academy, assuming that naval officers are available to do their work, why will there not be economy?

Representative DENISON. For the very reason that naval officers receive nearly twice as much pay as civilian professors.

Senator NEWBERRY. But they will keep right on receiving that pay, regardless of the number of civilians. As I understand, there will

no variation in the number of naval officers of the rank of lieutenant, whether there are civilian professors there or not. There will be the same number of lieutenants, receiving their pay; and if we eliminate that number of civilian professors at the Naval Academy, and if the department can say they can be safely eliminated, would that save the entire amount paid for those civilians?

Representative DENISON. That depends upon the policy.

Senator NEWBERRY. Let us see how it would work.

Representative DENISON. All right.

Senator NEWBERRY. If there are civilians there now for whose salaries it costs \$100,000, and they are eliminated, why will not that \$10,000 be saved? You said a minute ago that it would not save anything.

Representative DENISON. It will not, according to my view.

Senator NEWBERRY. Why not, when you will not have to spend that \$10,000?

Representative DENISON. Well, I will state. If you have a certain number of naval officers and have not anything else for them to do, and they are going to be left in the service anyway, and you have no duty or service to assign them to except that of teaching at the Naval Academy, and you want to assign them there because you have no other place for them, then it would be a saving to substitute them with the civilian teachers.

Senator NEWBERRY. That is not the way you assign them, because they have nothing else to do. They pick out those men because of their experience and ability and their knowledge of young men, and send them to the Academy, no matter what they are doing, because that is what they want them for. There is no idle class of naval officers, as your remarks might indicate, from which men are sent, haphazard, to the Naval Academy, because they have nothing else to do. Every naval officer I have ever heard of has a great deal to do, and if he is assigned and sent to this important work, it is because of his ability for it; and if they say that they can do away with a certain number of civilian instructors, it is because they have naval officers qualified to do that very work. It may be the most important work they do in their whole career, and I have often thought that it was, in fact—the handling of those young men who were to be our young naval officers. It is not a discard job, that a man takes because he has nothing else to do.

Representative DENISON. No.

Senator NEWBERRY. It is really one of the most important duties that any naval officer gets during his entire naval career, in my judgment.

Senator HALE. I take it that what you mean is that we should cut down the number of officers provided for in the Navy by 78, provided we keep these 78 civilian instructors?

Representative DENISON. Yes, certainly.

Senator HALE. If these 78 civilian instructors, then, receive lower salaries, we would save that much; but to do so we would have to cut down the number of officers in the Navy by that many?

Representative DENISON. Certainly; unless you have other assignments for them. That is what I meant, and I think that statement is true. Of course, if you are going to have these naval officers on duty and anyway, and there will be no other place for them to be as-

signed, and their salaries would have to go on anyhow, then, as a matter of course, it would be a matter of economy to get rid of all of the civilian instructors and put in their places naval officers; if you are going to have that many on hand and keep paying them their compensation anyway. But I mean, if you can reduce the number of naval officers and stop their compensation, or assign them to other naval duties, where they are intended to go, then it will be economy to have civilian professors at the Academy.

Senator PHIPPS. That raises, again, the question of qualification that you passed over a short time ago, and I understood from your remarks that in your opinion the civilians are better qualified as instructors than are the naval officers. Could that be the case in the matter of teaching navigation, for instance?

Representative DENISON. Certainly not; and I was going to get to that in a moment.

There are certain subjects at the Academy which ought to be taught by naval officers. For instance, navigation and ordnance and gunnery and marine engineering, and all subjects of that kind, ought properly to be taught by practical naval officers, it seems to me. But when you come to teaching English and history and modern languages and mathematics, it seems to me a self-evident fact that these young naval officers who have had no normal-school training and who have had no training as teachers, are not as well equipped to teach the young men as would be the trained professors who have had special training along those lines.

Senator PHIPPS. Of course, they would not be called upon to teach anything that they had not been qualified in by the instruction received in the Naval Academy itself, would they? They do not go any step beyond what they have learned and graduated in, any more than the man that graduates from some outside college, who is, in the majority of cases, the very man who is called upon by that college and is put in as an instructor?

Representative DENISON. It seems to me that from the mere fact that a man has gone through school, it does not necessarily follow that he is afterwards qualified to come back as a professor and teach in the schools, or to teach that subject.

Senator PHIPPS. Do not the leading colleges of the country recruit their professors from among their own graduates?

Representative DENISON. Sometimes they do and sometimes they do not.

Senator PHIPPS. But generally, do they not?

Representative DENISON. As a general rule you will find they select the men who have gone ahead and taken postgraduate work and qualified for that work.

Senator POINDEXTER. I want to hear you out; I do not want to argue with you, but this has occurred to me.

Representative DENISON. Yes.

Senator POINDEXTER. A great many of the naval graduates take postgraduate courses. Many of them go to Boston Tech; some of them go to Harvard and some of them go to the postgraduate naval school.

Representative DENISON. I think you will find that many of them have not done so, who are over there at the Naval Academy teaching now.

And then I am going on this information, Mr. Chairman: I will venture that if you will talk to the cadets, any of them, they will tell you that practically the only instruction they get at the academy they get from the civilian professors. These young naval officers who are assigned there, on coming ashore from sea duty and being sent there, have to crowd themselves in order to keep ahead of the classes. They know that they are only going to stay there a couple of years, three years at the most. They are not equipped and prepared for instructing young men, for teaching them in the various stages of a liberal education. They could not be. You will pardon a personal reference. I have graduated from two or three institutions, and I think I would be very poorly qualified to go back to those schools without special preparation as a teacher and instructor—a professor. That is true of all of us, I think.

Besides, if you keep on employing as instructors at the Naval Academy only the young men who have finished from that school alone, that leads to a process of intellectual inbreeding. No college does that. They select men who have graduated from other institutions who have gotten degrees from other institutions. They do not step inside the circle of just employing their own graduates to teach. None of them do that.

A very good way of judging of the wisdom of this policy is to see what other countries have done. All of the instructing in those various branches that I have just mentioned, English, history, mathematics and the modern languages, is done by civilian professors in the Naval Academy of England, in the Naval Academy of France, and in that of Italy—in all the European countries.

Senator POINDEXTER. Has it also always been done in our Naval Academy? Have they always had civilian instructors in modern languages and English, and so on?

Representative DENISON. Yes.

Senator POINDEXTER. In one instance I know that the head of the Department of mathematics was a civilian.

NAVY ACADEMIES OF OTHER COUNTRIES.

Representative DENISON. Yes; I have taken the trouble to look it up and see what other countries have done. The principal instructor at the British naval academy at Dartmouth is a civilian. They call him the head master. Naval officers are employed only to teach navigation and gunnery and ordnance and those special subjects for which their training specially fits them; but when you come giving young men instruction in history and English and languages and mathematics, I think that they ought to have the benefit of trained teachers. That is the view taken in other countries where they have naval academies, in Italy and in France, and in the German naval schools. So that, if we are going to give these young men a liberal education instead of giving them merely a naval training it seems to me that we ought to keep up a corps of civilian professors and instructors, and keep it up under such a system as will encourage them to remain with the institution, and so that we can get the very best material that can be gotten.

CONTRACT WITH CIVILIAN PROFESSORS.

Senator POINDEXTER. I agree with you upon one thing: If they make a five-year contract with a man they ought to try to keep it, or else compensate him in some way for it.

Representative DENISON. Oh, yes.

Senator POINDEXTER. I understand that in one case at least they have ignored the five-year contract with one of the teachers there, and just discharged him without a word.

Representative DENISON. Yes.

Senator POINDEXTER. Now, you say that the Board of Visitors has gone into this matter. My recollection is—I may be entirely mistaken, but my recollection is—that Admiral Wilson testified that the Board of Visitors favored the policy that he recommends.

Representative DENISON. He means this year's Board of Visitors!

Senator POINDEXTER. Yes.

Representative DENISON. I have not seen their report, but I think that is true. Now, heretofore the board of officers has been composed of the heads of various educational institutions; for instance, Doctor Sills and Prof. Irving Fisher, of Yale; Professor Alderman, of the University of Virginia; Prof. Benjamin Ide Wheeler, of the University of California; and Professor Talbot, of the University of Illinois. This year such men were not wanted. They secured an entirely different board this year.

Senator NEWBERRY. Who secured?

Representative DENISON. The admiral did or the Secretary of the Navy.

Senator NEWBERRY. Do you think the admiral appoints the board?

Representative DENISON. I think he may have suggested it.

Senator NEWBERRY. To the Vice President of the United States?

Representative DENISON. Well, Senator, it comes through the Navy Department. Of course the President appoints a part of it.

Senator NEWBERRY. I never heard of that before.

Representative DENISON. The Vice President appoints four or five Senators who are members of the board, the Speaker appoints five Members of the House, and then the President appoints a certain number. But, of course, they are recommended from below. But at any rate, the board was completely changed this year, and some new men were named on the board.

Senator POINDEXTER. Who were these?

Representative DENISON. I do not know them, but I understand they were business men, most of them. I think they were not connected with any prominent educational institution. I am not familiar with their names at all.

Senator POINDEXTER. Did this previous board, composed of the distinguished college presidents you have mentioned, make a written report on this subject?

Representative DENISON. Yes, sir; I do not have the report with me, but they did make a report.

TELEGRAM OF BENJAMIN IDE WHEELER, PRESIDENT OF UNIVERSITY OF CALIFORNIA.

I have here a telegram from President Benjamin Ide Wheeler, if the committee would like to hear it or cares anything for the views of a man of that kind. President Wheeler has been over there several

ies as a member of the board and has made quite a study of this
atter. He is president of the University of California.

Senator POINDEXTER. Is it long?

Representative DENISON. No, sir.

Senator POINDEXTER. Read it.

Representative DENISON (reading):

BERKELEY, CALIF., April 11, 1922.

I. E. E. DENISON,

Washington, D. C.:

ppropriations Committee is making a serious mistake in recommending the
lacement of civilian teachers at Naval Academy. Teaching is a profession.
: teaching of subjects like history, English, modern languages, and inter-
ional law presumes special preparation both as to knowledge of the subject
conveying the same. Going back to teaching by naval officers will mean
ctual annulment of the science of education as developed in the last
eration.

BENJAMIN IDE WHEELER, *President.*

LETTER OF PRESIDENT OF SWARTHMORE COLLEGE.

Now, I have here a letter dated April 12, 1922, from the president
Swarthmore College, who is, I am informed, a man of very high
e and of very high ability. It is a little longer than that which
ave read, and I will not take the time to read it unless the com-
tee wants to hear it.

Senator POINDEXTER. What is the substance of it?

Representative DENISON. I will read it. [Reading:]

SWARTHMORE COLLEGE,

Swarthmore, Pa., April 12, 1922.

I. EDWARD E. DENISON,

House of Representatives, Washington, D. C.

EAR SIR: I am informed that the naval appropriation bill now being con-
ered by the House of Representatives proposes to replace a large number of
lian instructors in the Naval Academy by naval officers. While I realize
t many of the officers in the Navy are excellent teachers, I nevertheless
eve that such a policy would be fatal to the present educational efficiency of
institution.

o matter how well qualified for teaching an officer may be, he can in most
s not reach the same excellence as a civilian who makes teaching his life-
k. I believe it is the policy of the Navy to change men from one position to
ther every few years, thus making it impossible for them to make the same
tinuous study of the problem of teaching that can be made by a man who is
t for life.

urthermore, scholarship and teaching ability are so rare that no institution
be successful which depends upon a certain group for recruiting its force.
ominal colleges find it necessary to go outside their denominations;
in the same way the Navy, if it wants first-class instruction, must, I think,
willing to go outside its ranks to recruit the staff of the Naval Academy.

he academy has a long and distinguished educational record. To put into
a proposal which, like this one, would inevitably destroy its educational
stige would be to earn the condemnation of that vast majority of the
zens of the United States who are interested in education.

Yours respectfully,

FRANK AYDELOTTE.

That is from the president of Swarthmore.

Now, no university, no college, would think of adopting a policy
selecting its instructors and teachers for two years and then letting
m go. If you want to build up an educational institution and
intain it, you must have a certain permanency in the teaching
ce; you must get men of ability and keep them; and the Naval

Academy can not do that by sending these young naval officers there on assignment for two years of shore duty and then taking them away again.

Senator HALE. Is that the rule, without exception?

Representative DENISON. A man is assigned there for two years or for three years—never for longer than three years.

Senator HALE. And there are no instructors taken from the Navy who have taught for more than two years there?

Representative DENISON. No, sir.

Senator NEWBERRY. How about the teachers of mathematics—have they not some men who are there permanently?

Representative DENISON. Not if they are active naval officers. The regulations of the Navy provide that a man has got to get out after two, or at most three, years.

Senator NEWBERRY. I would like to look that matter up and get the exact facts. I know that sometimes there have been officers there for a long time as professors of foreign languages, and sometimes as professors of mathematics and sometimes of history. They have been commissioned in the Navy and are there as instructors. Senator Hale gets the idea from what you say that the longest anybody is there is two years. I think you will find that some of them have been there for a great many years.

Representative DENISON. I think you will find it to be the case that they have had some men who may have been naval students and gotten out of the Navy, and who then went in as civilian professors.

Senator NEWBERRY. Is Dashiell there yet?

Assistant Secretary ROOSEVELT. Yes, sir.

Representative DENISON. In order to retain them, they may afterwards have commissioned them for that purpose, but I am speaking of active officers in the Navy. Under the regulations—I think I am right about it—they can not stay there over three years. I may be mistaken, of course. I am not a naval officer. I am simply giving the information that has been given to me, and if I am inaccurate about it, of course I want the committee to know that I express due apology for that. At any rate, that is the custom. Men are assigned, and they can only be on shore duty for two years or three years, and then they are sent back to sea duty; and that is the custom with those assigned to the academy. There may possibly be exceptions to the rule. But that is one of the weaknesses of the policy of trying to run the institution by naval officers, because you are continually changing them.

Now, I have talked, Mr. Chairman, with a number of cadets. You can very often get the truth, get a very good picture of the facts, by talking with those boys who have been there. The young naval officers in large measure merely act as referees between the boys and the textbooks. They do not allow the boys to ask questions. They give orders. When the class comes in they give the order to "man the boards," as they call it; they get them up to the blackboards, and that is the last they do. They grade them afterwards. They grade them by reference to the textbooks. It is not instruction; it is a mere sort of continuing examination, assigning questions or problems, as case may be, to the boys, and then they grade their answers ac-

ding to the textbooks. So that it is a sort of continuing examination, instead of real teaching or instruction.

Senator HALE. Would you say that men who graduate from the Academy, who have been taking the course under instructors who come from the regular Navy, are not properly fitted in these particular courses in which they have had such instruction?

Representative DENISON. Fitted for what, Senator?

Senator HALE. For work.

Representative DENISON. I think they make very good naval officers. I think we have got a splendid Navy, a splendid personnel. I do not think they are fitted for teaching.

Senator HALE. But do you think they are fitted to take their positions as naval officers after this work of instruction?

Representative DENISON. Why, I think so. But I think they are just as well fitted as they would be—you ask a question which has never, as a matter of fact, been put to the test, because we have never had civilian professors in the academy.

Senator HALE. Yes; but you have not always had civilian professors who did all of the work.

Representative DENISON. No; and I would not want that. I would not think of it.

Senator HALE. My idea is that the work has been done by officers—

Representative DENISON. Do not misunderstand me. I would not favor a policy of substituting civilian professors for all of the naval officers. I think that the proper proportion has about been reached now. I think there are certain subjects which ought to be taught by trained civilian teachers, and there are other subjects which ought to be taught by trained naval officers. That is the ideal policy, it seems to me. But if you get rid of all of the civilian professors and have only naval officers, my own judgment is that you will have a poorer Navy in the future than you have now, because that institution over there is the cradle of the Navy; and I think that naval officers ought to be highly educated. The boys are put into the Academy; they are deprived, thereby, of an opportunity to go to other educational institutions, and if we ask them to do that, we ought to give them the benefit of the higher education so far as we can; and it seems to me that it ought to be apparent that you are not giving them the benefit of higher education if you send them there to be instructed by men who have had no training for teaching instruction, and have not been educated with a view of becoming teachers. The average boy goes there and he takes the course and gets through the best he can. He is not training himself for a teacher. He is training himself for the Navy—or he is trying to get through the course. Many of them just barely do get through, and many of them do not get through. But they are not taking training for teaching; and I can not think that young men who are trained, who are taught, by men of that kind, who have had no more advance than that, should be intrusted with the duty of giving these boys this higher education.

Senator HALE. But it is not so, you state, under the present system?

Representative DENISON. No; certain of the courses are carried on by civilians and certain others by naval officers.

Senator HALE. The general result is satisfactory now?

Representative DENISON. Certainly.

Senator HALE. That is, the naval officers have done all right in the courses they have instructed in?

Representative DENISON. Yes.

Senator HALE. At present?

Representative DENISON. Yes.

Senator HALE. But you do not think that they ought to encroach on the particular courses which the civilians now conduct?

Representative DENISON. That is right. That is the way I feel about it. In other words, I think that the academy is doing splendid work now, and it ought to be left alone.

Senator POINDEXTER. Is there about the same proportion—I understood you to suggest that there is about the same proportion—of civilians in the faculty that there was before the war?

Representative DENISON. I think, Senator, it is a little bit larger proportion than it was before the war; and I think that is the policy that has been intentionally developed. I think that was Admiral Scales's opinion about the matter—who was the preceding superintendent.

Senator POINDEXTER. Was it not in part due to the need of naval officers in the service during the war?

Representative DENISON. Well, that may have been partly the reason, but I think the number now is about 116, and I think the number of naval officers is 140 or 150, altogether; and if we want to economize, if we want to reduce the number of civilian professors, it seems to me the policy should be to reduce the number of civilian professors; then we could reduce the expense of the academy materially. We cannot do that this year. We are going to have the same number of cadets there this year.

Now, if it is the desire of Congress to economize, we can arrange to reduce the number of cadets hereafter, and then, when the number of civilian professors as well as the number of naval officers can be reduced accordingly.

LETTERS FROM PROFESSORS OF VARIOUS UNIVERSITIES.

I was going to state that I have here a letter from Professor T of the University of Illinois, a very lucid letter, on which I have one here also from one of the professors at Harvard University; I have one from Professor Eliot of Harvard; I have one from the president of the Peabody College at Nashville; I have one from President Alderman of the University of Virginia, who was on the board for three years, I believe; I have a letter from the University of North Carolina, who was on the board; I have a letter from President Sills, which I have a very clear letter, upon that subject. The one from North Carolina from President Riddick of the North Carolina State College. These men take the view that I have tried to express, that it would be a fatal mistake, a serious mistake, to carry out this policy of getting rid of the civilian instructors and substituting naval officers. I will insert these letters with my

Senator POINDEXTER. Do you think that the standard of ship is higher anywhere else than at the Naval Academy?

representative DENISON. The standard of scholarship?

Senator POINDEXTER. Yes.

representative DENISON. I am not in a position to express an opinion upon that, because I never was there, and I know nothing about it. I would not like to say.

Senator POINDEXTER. Have you any complaint to make as to the standard of scholarship within the subjects covered, required of shipmen to pass in the various subjects of study? I mean, do you claim that it is an inferior or lower standard, that ought to be improved, or what is your position about that?

representative DENISON. My position, my view, is that the Naval Academy is in splendid condition now; they have a splendid corps of both civilian and naval professors. The boys have been doing splendid work. They have high requirements there now, and they insist it to be kept that way; and they have a fine corps of teachers, the boys that are being turned out from the Naval Academy are well equipped, in my judgment, and I think the present standard ought to be maintained.

Senator POINDEXTER. I do not mean to be personal, and you need not answer this at all: Were you interested in a controversy that was loped in the Senate some little time ago, started by boys who failed in their examinations?

representative DENISON. No; I had no interest in that. I do not know anything about it.

Senator POINDEXTER. My recollection is that a good deal of information was presented at that time from civilian instructors at the Academy detrimental to the qualifications of the naval instructors rather taking the view that you take.

representative DENISON. Yes.

Senator POINDEXTER. But so far as practical application is concerned, they seemed to rather stand for a lower standard instead of maintaining a high standard. They were claiming that when they failed they ought to be given repeated chances again to stay and it seemed to me the inevitable tendency would be to lower rather than raise the standard.

representative DENISON. I am not familiar with the controversy. I believe that I have seen the letter that Senator Pomerene read in the record.

Senator POINDEXTER. Yes; Senator Pomerene was very much excited over the matter.

representative DENISON. Yes. He read a letter from one of the shipmen over there, in which he criticized, and said in substance they did not get any real instruction from the naval officers.

Senator POINDEXTER. Yes.

representative DENISON. I have talked with a number of the shipmen. I have a letter here that I would like to read to the Senators. It appeared to be written to me by a person in whom I am not particularly interested in any way. Here is what he says [reading]:

LETTER OF CADET.

I have been intensely interested, as have all of the midshipmen, about the discussion in Congress on the subject of civil versus naval instructors and professors at the Naval Academy. I have also taken the trouble to read in the *Standard* and *Navy Journal* of the 15th of April the feeble arguments advanced

by the authorities here about the above. I should like to be put on record as saying (and I am sure I but echo the feelings of a large body of my schoolmates) that the system of education here is a travesty on knowledge, due largely to the demoralizing effect of naval officers attached to the teaching staff. How deplorable it is that midshipmen come to realize from this contact and association with naval officers how little, after all, a naval officer has to know to "get by"; and really more than that, to make a success in the service.

In justice, naval officers are better qualified to teach purely naval subjects. By that I mean ordnance, seamanship, and navigation; but they are woefully unfit to teach the academic subjects. This state of affairs is one of the deepest reasons for the unrest at the Naval Academy. And it is to get more men there who look upon teaching as their life work instead of a disagreeable duty is the purpose of this note. Did you realize that alternating current is now used entirely on our newest ships, and that the class of 1920 was the first to study alternating current? Yet men in 1910, 1912, and 1913 were brought back to teach it.

Of course, that is the way one of the midshipmen looks at it.

Senator NEWBERRY. If that is all he knows about ships, it is time that he went to sea.

Representative DENISON. Of course, he is only one of the cat who has not been to sea perhaps.

Senator NEWBERRY. It is perfectly ridiculous.

Senator HALE. But you do not agree with that? You think the instruction is a success; is that true?

Representative DENISON. I think when naval officers have been sent there to teach history and mathematics and modern languages—

Senator HALE. They do that now, do they?

Representative DENISON. They do occasionally, and I think is subject to criticism. But in so far as they teach these other subjects for which they are specially fitted I think that it is a success. Now, the boys themselves complain of their naval teachers. I am with any of them, and they will tell you the same thing that I am telling you.

I have it from midshipmen that they have had naval officers assigned to instruct them in some of the mathematical branches. They would shift the teachers after two weeks because they did not want to put the boys at a disadvantage; they would shift them after a short time.

It is a fact, well recognized among the midshipmen themselves, that their real instruction must come from the civilian instructors.

I am not saying this as a matter of criticism. It seems to me it ought to be apparent.

Senator NEWBERRY. Would you mind my calling your attention on that line, to this thought? It occurs to me that these officers are now the high ranking officers of the Navy, who recommend a reduction in the number of civilians, were midshipmen themselves, and whatever their point of view was as midshipmen, or yours, or when in school and college, we all learn something as we grow up, and as these officers have reached command rank in the Navy it occurs to me that they have had an experience that justifies them in expressing an opinion as to the kind of training and the character of training that the boys should have, and that they should do what they are sent there to do—to become naval officers. Whatever you or I thought when we were in school we have certainly changed

int of view, because we have acquired a broader picture or idea of what naval officers have to do. These officers who have been midshipmen and have been all through it themselves, therefore have an intense desire for competent and well trained officers under them, with a proper and a higher amount of education, and it seems to me their judgment is vastly better than that of a midshipman. As to what you and I thought, when we were in college, about our instructors, I would hate to say what I used to think about them. I know we were strong for a change generally no matter what it was.

Representative DENISON. I know that when I was in college I could find out among the boys who the instructors were who knew how to instruct us. We had some above us who did not know how to instruct us; and the boys always know that.

This young boy is not recommending any policy. He is just telling what he feels as a midshipman. I would not have mentioned it, because I have a number of similar letters with which I will not clutter the record, and other Members of the House have received similar letters; but it is the reflection of the popular view among the midshipmen, and I thought if that was worth anything to the committee it should be submitted.

Senator POINDEXTER. You have made a pretty comprehensive and fully well supported statement of your views in this matter. Is there any other phase of the matter that you want to go into?

Representative DENISON. I think that is all, Senator. I felt, Mr. Chairman, that an ex parte statement, a one-sided statement, ought not to remain in the record unanswered. Unless some of us take an interest in this matter there is no one who can come before your committee and present the other view. The civilian professors cannot do it. They would not dare to do so. As to the present superintendent, I presume I ought not to say anything that will reflect on or criticize him in any way. I do not want to do that. He is a splendid naval officer, of the highest type. But he seems to have the impression that the Naval Academy ought to be run just like he could run a battleship, himself in supreme command, and without insulting anyone.

As to the civilian professors, there is no one of them that would venture to come here and present the other view. There is no one to present the facts unless some one like myself does it. I have ventured to do so because I am interested in the academy.

If this policy is carried out, if they do get rid of the civilian instructors over there, I can not tell the parents in my district that if they send their boys to the Naval Academy they will get a college education. If they want them to have naval training, that is all right; but if they want to make their boy an educated gentleman, I could not tell them to send him to the academy, because he would not like it if they have all naval officers there, and I say that without any intention of criticizing them as naval officers; I am talking about the academy as an educational institution.

Senator POINDEXTER. We will inquire into the matter of having only naval officers there. That is quite important. I do not understand that was the intention of the authorities, and that seems to be practically the only issue. My understanding is that they intend to keep some civilian instructors there. You seem to be of the opinion that they intend to do away with all civilian instructors.

Representative DENISON. Well, now, I am not saying that Admiral Wilson has said anything that indicated that. He only recommended that 75 of them be discharged now; but I have gotten information which indicated that that was his policy, at which he is aiming, without any definite time stated. Now, I think it would be a mistake to get rid of any of them. I think they have reached a pretty good condition there, and if we decrease the number of teachers as a matter of economy, we ought to reduce the number of cadets first.

One other statement the superintendent made was that if this appropriation is left in the bill, as the House made it, he could not dispose of any of the civilian professors at all. That is not accurate. This provision simply prevents him from removing any of the civilians and substituting naval officers for them. It does not prevent him from getting rid of as many of the civilian professors as they can spare. He can go ahead and get rid of them if he does not need them, or if he wants to get better ones in their places. But this will prevent him getting rid of the civilian professors and substituting naval officers for them. That is the only effect of it. It is simply a limitation on the appropriation.

Senator PAGE, Congressman, do you believe the discipline, and the broadening out of the cadet by the course at Annapolis, makes him a better and broader and larger military man, better fitted to discharge his duties in military life, than he would be without the class of education that he gets there?

Representative DENISON. I may not have understood your question, Senator.

Senator PAGE. I asked you the question, do you believe that the class of training the cadet gets at the academy makes him a bigger, broader naval man when he gets into actual naval duty?

Representative DENISON. I do. I believe, Senator, that the future officers of our Navy, the men upon whom the country is going to depend for the management of the Navy in the future, ought to be men of the very broadest education. It is a mistake, it seems to me, to narrow their education down to merely naval lines. They ought to be given a broad, fundamental education. I think it makes them better naval officers and better citizens, and I think it will be a serious mistake for Congress to ever adopt a narrow policy of confining the instructors at the Academy simply to naval officers, and eliminating these men of broad education and training as teachers and instructors. I would not venture that view before this committee, even though it is my own view, if I had not proved, upon investigation, that that is the view of the best educators of the country, and is the system followed in all the naval schools in the world.

Senator PAGE. I think that ought to be the view in all the naval schools.

Senator NEWBERRY, Congressman, would you object, after I have confirmed my hazy impression about naval officers remaining at the Academy, if I just inserted at the end of your remarks the facts as to the service of the older officers there; that is, how long they have served and any special qualifications they have?

Representative DENISON. I would be glad if you would do so, Senator, because if my statement is inaccurate I want to be corrected.

Senator NEWBERRY. I do not think it is inaccurate, but there may be something missing that either you or I may be able to get and put there.

Representative DENISON. You know, I have had no experience in Navy. I called up on the telephone and they gave me over the telephone the manner of selecting the men who are assigned there, and they said that under the regulations they have to go back to sea for a service on shore of generally two, but sometimes three years. The time is generally two years. If that statement is incorrect, I would be glad to have you correct it, because I personally do not really know.

Mr. Chairman, I wish now to give my authority for the statement I made a few moments ago with reference to the method of selecting the naval officers who are sent to the academy as instructors. I knew I had seen the statement somewhere, but for the moment I could not recall just where. I now have before me the hearings before the House Appropriations Committee on this bill. I quote from page 313 of the hearings, wherein Admiral Wilson was answering a question asked by Representative Byrnes, a member of the committee:

Admiral WILSON. Mr. Byrnes, we have very little choice about who shall come to the Naval Academy as instructors. If he is an officer in the Navy and his services are available, he is sent to us, and I have not first pick of the men in the Navy who come to the Naval Academy as instructors.

Mr. BYRNES. Who does select them?

Admiral WILSON. When the Bureau of Navigation finds officers becoming available on account of detachment from sea duty, they send their names to me. I pass on them and I pick anyone, unless he has something in his make-up which I now personally would not fit him to be associated with the midshipmen.

This statement of the superintendent fully justifies, I think, my statement that officers are not assigned to the Naval Academy as instructors because of their special fitness or qualifications, but, on the contrary, the instructors are selected from those officers who are entitled to shore leave, and the superintendent accepts any of them, unless he personally knows of something in their make-up which would not fit them to be associated with the midshipmen.

LETTERS FROM UNIVERSITIES.

The letters I desire to submit as a part of my statement are as follows:

UNIVERSITY OF ILLINOIS,
Urbana, Ill., April 12, 1922.

DR. E. E. DENISON,

Member of Congress, Washington, D. C.

DEAR MR. DENISON: In response to your request of April 11, I wish to present my views on the proposed displacement of civilian instructors with naval officers at the United States Naval Academy.

There are two types of instructors at the academy, the naval officer and the civilian-trained instructors, both have important functions.

There are important reasons why such subjects as seamanship, ordnance, navigation, and marine engineering should be directed and taught almost exclusively by officers of the Navy. This arrangement not only brings in men familiar with the practice of the Navy and the latest developments of the sea, but the spirit of the Navy is brought to the academy and instilled into the young officer. The officer teacher as a liaison member between the school and the Navy is a valuable part of the organization.

There are equally important reasons why the teaching of other subjects, such as physics, mathematics, English, and languages should be done largely by

by the authorities here about the above. I should like to be put on record as saying (and I am sure I but echo the feelings of a large body of my school-mates) that the system of education here is a travesty on knowledge, due largely to the demoralizing effect of naval officers attached to the teaching staff. How deplorable it is that midshipmen come to realize from this contact and association with naval officers how little, after all, a naval officer has to know to "get by"; and really more than that, to make a success in the service.

In justice, naval officers are better qualified to teach purely naval subjects. By that I mean ordnance, seamanship, and navigation; but they are woefully unfit to teach the academic subjects. This state of affairs is one of the deepest reasons for the unrest at the Naval Academy. And it is to get more men there who look upon teaching as their life work instead of a disagreeable duty is the purpose of this note. Did you realize that alternating current is now used entirely on our newest ships, and that the class of 1920 was the first to study alternating current? Yet men in 1910, 1912, and 1913 were brought back to teach it.

Of course, that is the way one of the midshipmen looks at it.

Senator NEWBERRY. If that is all he knows about ships, it is high time that he went to sea.

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Senator HALE. But you do not agree with that? You think instruction is a success; is that true?

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Senator NEWBERRY. Would you mind my calling your on that line, to this thought? It occurs to me that th are now the high ranking officers of the Navy, who are in duction in the number of civilians, were midshipmen whatever their point of view was as midshipmen, or y or when in school and college, we all learn something as we grow and as these officers have reached command rank in t Navy occurs to me that they have had an experience t it in expressing an opinion as to the kind of training t of training that the boys should have, and that they and they are sent there to do—to become naval officers. W I thought when we were in school we have certainly c

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DEAR MR. DENISON: In response to your request of April 11, I wish to present my views on the proposed displacement of civilian instructors with naval officers at the United States Naval Academy.

The two types of instructors at the academy, the naval officer and the civilian-instructed instructors, both have important functions.

There are important reasons why such subjects as seamanship, ordnance, navigation, and marine engineering should be directed and taught almost exclusively by officers of the Navy. This arrangement not only brings in men familiar with the practice of the Navy and the latest developments of the sea, but the spirit of the Navy is brought to the academy and instilled into the young officer. The officer teacher as a liaison member between the school and the Navy is a valuable part of the organization.

There are equally important reasons why the teaching of other subjects, such as physics, mathematics, English, and languages should be done largely by

the civilian instructor. Teaching is a profession. To be a good teacher in such subjects requires preliminary training, preparation, and experience. Most of the civilian instructors have been chosen by competition from men who have prepared themselves for teaching as a life work. They have come from a variety of schools and have the best of training. They are scholarly in character. If they do not prove to be good teachers after a short period of probation, they do not remain. There are distinct advantages in having civilian instructors in such branches: 1. They may be expected to bring a broader and deeper training in the subject taught and in related subjects and to have a knowledge of the viewpoints of teachers engaged in similar work in civil institutions and in civil life. They bring with them modern pedagogical ideas. 2. In the technical lines the contact that civilian instructors have had with men trained away from the Naval Academy and their knowledge of the views of technical men in civilian pursuits will give an opportunity for the instructors who are naval officers to discuss and measure the effectiveness and adequacy of the methods and views taught to midshipmen. 3. In any event, care should be taken to avoid too much inbreeding—a condition which all colleges and universities have to be upon the alert to prevent. In judging of the usefulness of the civilian instructor it should be kept in mind that the Naval Academy is both a vocational school and an educational institution.

In the last few years there have been brought together at the Naval Academy a body of civilian instructors who are as capable, well-trained, and proficient teachers as may be found anywhere. The quality of the instruction in these branches has greatly improved and is of high grade. Without discredit or criticism of the naval officer teacher, it is apparent that men brought in from the sea, detailed for a brief period to teaching work, may not be expected in general to give the quality of instruction in such branches that will be provided by the trained teacher.

It seems to me, then, that the proposal to replace civilian instructors with naval officers in any large number would be extremely detrimental to the interests of the midshipment and the Navy. I feel this is all the more so after seeing the gain that has come to the educational standards of the academy in recent years through the development of civilian instructors. The substitution of civilian instructors in general subjects and of naval officers for technical subjects is an ideal one, and any change would result in serious injury to the effectiveness of the academy instruction.

I shall be glad to give my views in more detail on any part of this matter in case it is wished.

Very truly yours,

A. N. TALBOT.

[Quotation from *Scientific Monthly*, November, 1920.]

EDUCATION AND LEARNING IN AMERICA.

[By Prof. Arthur Gordon Webster, Clark University.]

Within the last few years I have personally visited both the Naval Academy at Annapolis and the Military Academy at West Point, and during the years of my membership in that at first much overadvertised and later forgotten institution, the Naval Consulting Board of the United States had the opportunity of meeting many officers of both services. They are always extremely agreeable gentlemen, accustomed to the hard work and thoroughly competent in the ordinary duties of their profession, all alike in one thing, however. They have been deprived of the really superior education. Army and naval officers do not, as a rule, have ideas, nor do they contribute to the advancement of science, even in their profession.

During my visit to Annapolis, where I was received with the greatest hospitality by the superintendent, who personally conducted me all over the school: when we came to the physical laboratory, as I am a physicist, I asked some questions of the young instructor in order to show my interest. He regretted that he was unable to answer, excusing himself because he had but recently come. That night at dinner I could not resist asking the superintendent, who told me that he had brought these officers with him, whether he could make a physicist out of any officer. "Oh," he replied, "they had very distinguished records at

a." I had nothing to say, but it occurred to me that no amount of distinction sea would have made a physicist of me. In the Army and Navy the theory is that anybody can teach anything if dered to. Of such a theory, the less said the better. They should have as offessors the most distinguished scientific men that the country can afford. ey need not necessarily wear chickens on their shoulders. It is high time at the feeling of self-sufficiency which impregnates officers of the regular litary Establishments should be somewhat dissipated. They may as well rn that occasionally a person not in uniform can give them some advice.

GREENCASTLE, IND., April 11, 1922.

representative EVERETT SANDERS,

Washington, D. C.:

The faculty of De Pauw University protest against decreasing appropriation for the Naval Academy and ask that enough money be appropriated to y the salaries of all civilian instructors in full for the coming year.

THIRTY-FIVE MEMBERS DE PAUW FACULTY.

Mr. Chairman, I also wish to have read here three letters from prominent ucators that were presented in the hearings before the committee in 1913 en this same subject was then under consideration.

HARVARD UNIVERSITY,

Cambridge, Mass., January 5, 1913.

W. E. W. ROBERTS,

Committee on Naval Affairs, Washington, D. C.

DEAR SIR: I hope I may win your attention for a matter which is, I think, w before the House Committee on Naval Affairs. In the pending naval appropriation bill the number of junior or \$1,800 civilian instructors is reduced m 10 to 4. This is merely the first step in carrying out the stated policy the present Secretary of the Navy "to reduce the number of civilians at the demy as fast as the number of officers available to replace them permits." earings before Committee on Naval Affairs, p. 1907.) It may be shown that s policy, aside from its possible injustice to civilian instructors, would, if ried out, decidedly lower the standards and efficiency of the academy. he present civilian instructors are trained teachers, most of them college duates, several of them scholars and writers of distinction, men who have oted years to the profession and made it their life work. Their places ld be taken by officers who have not such special training or experience, o devote but a limited period—two or three years—to the work, and whose uests are very properly not in the classroom but in their duties as naval ers.

t is not true "that anyone can teach school," least of all in this day of dy specialization and expert training in limited fields. If this change re to take effect, the teaching in such purely academic branches as English, eign languages, and mathematics would become what it was in years past— licated and bungling, below the standard of the average high school. t is, of course, absolutely essential that midshipmen should be under mili- y discipline, in constant contact with officers and imbued with the splendid als of the Navy. But all this is abundantly provided for by the conditions hich they live, their daily drills and technical instruction, and their exper- e in the summer cruise. There are now over 100 officers engaged in ching and not more than 25 civilians. Intercourse with this limited num- of university-bred men, instead of doing harm tends to prevent the narrow- ing and inbreeding effect of an education wholly removed from ideas other n those of the service.

n the most important naval schools of the world—England, Germany, Italy, nce—both advanced and preparatory, the instruction is very largely by lians. In England there are both "naval" and "professional" staffs, the t composed of officers for discipline and technical instruction, the second posed of Oxford and Cambridge graduates for instruction in academic sub- s. The question with us involves not merely the dismissal of a few instruc- s; it is a question whether instruction in academic subjects is to be hap- ard and perfunctory or in line with the best practice of our colleges and mical schools.

I hope it is not too late for a hearing in the matter, or at least for its consideration by the committee.

Very respectfully yours,

C. H. GRANTGENT.
Professor of Romance Languages.

CAMBRIDGE, MASS., January 9, 1913.

MY DEAR SIR: I understand that the naval appropriations bill now before Congress provides fewer salaries for civil instructors at the Naval Academy than formerly, in accordance with the policy advocated by the Secretary of the Navy "to reduce the number of civilians at the academy as fast as the number of officers available to replace them permits."

This policy strikes me as wasteful and inexpedient on many other grounds, but my present concern is with its sure effect on the academy itself as the school for our naval officers. From the point of view of an educational administrator nothing could be worse than teaching English and other modern languages and the applied sciences through young naval officers who know nothing about teaching and serve as so-called teachers for very short terms in the intervals of sea service. In the technical subjects young naval officers can make pretty good instructors; and the rapid replacement of the teachers of technical subjects at the academy is not very disadvantageous, because experience at sea keeps a naval officer tolerably fresh in the technical subjects. To employ that kind of teacher for the academic subjects is highly inexpedient. Indeed, there is nothing to be said for it. To begin with, it makes it sure that the whole teaching staff of the academy will consist of graduates of the academy. West Point and Annapolis have already suffered severely from the amount of breeding in-and-in there indulged in. This present proposal would aggravate the difficulty at Annapolis very much.

One would have supposed that the Secretary of the Navy, in the present scarcity of commissioned officers, would be reluctant to detail more officers for service at the academy. To effect economies can not be the motive of the Secretary, for the salaries of the civil instructors are lower than those of lieutenants in the Navy. The academy is the worst possible place in the whole Navy administration to make inexpedient economies, for the investment of the country in the thorough education of naval officers is the best and most durable investment the country makes on behalf of the Navy.

I believe that you are a member of the House Naval Committee. May I beg you to bring this letter to the knowledge of your colleagues in that committee?

Very truly yours,

CHARLES W. ELIOT.

HON. ERNEST W. ROBERTS.

GEORGE PEABODY COLLEGE FOR TEACHERS.
OFFICE OF THE PRESIDENT.
Nashville, Tenn., January 3, 1913.

HON. L. M. PADGETT.

Member of Congress, Washington, D. C.

MY DEAR MR. PADGETT: I have learned with a great deal of distress that there is an extraordinary and impracticable proposition coming up soon before the committee of which you are chairman. It looks toward the ultimate elimination of civilian professors at the Naval Academy.

Now, I do not wish to take up your time by arguing this matter, but as the head of a great teachers' college devoting its entire energies to the study of problems of education and with what experience I have, it is my duty, and I hasten to make it my privilege, to protest against any such unwise and hasty legislation.

It is the judgment of educators over the country (and it is they who have practical knowledge about such matters) that to limit the selection of the teaching staff of an institution to a ridiculous minority of the teaching profession would practically guarantee the decadence of efficient instruction in the Naval Academy or in any other institution. If military tactics alone are to be taught at the academy the proposition might be practicable, but it is no guaranty of inherent ability or acquired fitness as a teacher of any of the academic subjects to say of a gentleman that he has had military discipline.

It is well known among educators that the instruction given at Annapolis is below college grade. I earnestly beg, therefore, that your committee do nothing more to lower the standard of work.

Yours sincerely,

BRUCE R. PAYNE, *President.*

BOWDOIN COLLEGE,
OFFICE OF THE PRESIDENT,
Brunswick, Me., April 3, 1922.

MR. B. G. HUMPHREYS,
House of Representatives, Washington.

MY DEAR MR. HUMPHREYS: I received last Saturday afternoon your telegram giving me my opinion of the proposition to replace civilian instructors at Annapolis with naval officers. As it happens, I expect to be in Washington on Tuesday and Friday of this week—April 6 and 7—and shall endeavor to see you then and talk the whole matter over. In the meantime, however, I am personally willing to go on record to this extent:

For five years, from 1917 to 1921, inclusive, I was a member of the Board of Visitors to the Naval Academy. The board, or that part of it that was composed of college men, was unanimous, I think, in believing that the weakest thing the academy was the teaching in the classroom. If the naval authorities intend to confer the degree of B. S. on the graduates of the Naval Academy hereafter, it is vitally important that the course there should be the equivalent of that given by our best civilian engineering schools, and I do not see how this can be done unless in certain departments expert civilian instructors are employed. Furthermore, I believe that in assigning the naval officers to the academy for instructional purposes the department should be much more careful than it has been in the past about assigning men who have some qualifications as teachers. Doubtless there are in the Navy a certain number of officers who have the gift of teaching and who would do very well in classroom; but only such men should be assigned for that important duty.

In the emergency now before the Navy Department, under which it may be necessary to train a number of men who will never become naval officers, it seems to me all the more necessary to see to it that the teaching is equal to that of the best institutions of collegiate or university rank in the country. Of course, the academy exists primarily to train naval officers, but the morale is so good there that discipline will not break down if civilian instructors are employed there more generally in the classroom. No fair-minded man can visit the academy without being aware that the methods in many of the departments are antiquated and not nearly so effective as they ought to be. Personally, I hope very much that Congress will increase the number of civilian instructors there rather than eliminate them.

Very truly yours,

KENNETH C. M. SILLS, *President.*

NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING,
PRESIDENT'S OFFICE,
West Raleigh, April 11, 1922.

MR. B. G. HUMPHREYS, M. C.,
Washington, D. C.

MY DEAR MR. HUMPHREYS: I have received your letter of April 7, and must confess that I am somewhat surprised at the turn matters seem to be taking in the Naval Academy. I was, as you perhaps know, on the Board of Visitors two years, and I think the unanimous opinion of the members was that the employment of civilian instructors should be encouraged to an even greater extent perhaps than at present.

Personally, I believe that in those departments which are not purely technical there should be a large percentage of civilian instructors whose profession is teaching and who are interested in this work and who will stay at the academy long enough to acquire the experience necessary to make them really efficient. I firmly believe that if these civilian instructors are dispensed with, the entire teaching force of the academy should consist of men detailed in the Navy for a few years whose principal interest is not teaching, that

the standards of the academy would be very much lowered and that as an educational institution it would not be on a par with the other colleges of our country. I should hate very much to see the policy suggested in your letter adopted.

With best wishes,
Sincerely yours,

W. C. RIDDICK, *President.*

UNIVERSITY OF VIRGINIA,
OFFICE OF THE PRESIDENT,
Charlottesville, April 10, 1922.

HON. BENJAMIN G. HUMPHREYS,
House of Representatives, Washington, D. C.

MY DEAR MR. HUMPHREYS: I am glad to have your letter of the 7th instant. My own judgment is entirely against the proposed policy to reduce and finally replace civilian instructors at Annapolis with officers from the Navy assigned to the academy as instructors. In the fields of English, history, and the modern languages, at least, this policy would be destructive of good teaching and of real scholarship, and would, I think, tend to lower the whole educational status of those subjects in the scheme of instruction at the Naval Academy. I understand that the Naval Academy is a very technical institution, existing not to make scholars but technical men known as naval officers, but they have great responsibilities. They need some knowledge of the language and history and literature of their own and other countries to enable them to represent this country with propriety and power and to do their duty in the largest possible way. Doubtless money could be saved by the process, because it is a penny-wise and pound-foolish policy, in my judgment. I served for four years, I think, upon the Board of Visitors of the Naval Academy as its chairman. I do not pretend to have knowledge of the technicalized subjects there taught, and do not doubt that they are taught splendidly—certainly with devotion and by officers of the Navy. The best teaching I saw, however, was done by civilian instructors, and it would be a sad day, I believe, for which all of us honor and respect, if the teaching power and of the civilian instructors should be removed from its life.

Faithfully yours,

EDWIN A. ALDERMAN,
President.

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., June 1, 1922.

Officers now on duty at the Naval Academy, who are doing a second or third tour of duty there, with the length of service at the academy during these combined tours, to date, June 1, 1922 (when that service is more than years):

Commander John Downes (second tour), 4 years 1 month 11 days, from September 29, 1915, to November 20, 1918, and from June 11, 1921, to date.

Commander Douglas L. Howard (second tour), 5 years 4 days, from June 26, 1912, to July 31, 1915, and from April 2, 1919, to date.

Commander Wilbur R. Van Auken (second tour), 4 years 3 days, from May 14, 1910, to June 7, 1913, and from June 21, 1921, to date.

Commander Charles C. Soule, jr. (third tour), 4 years 7 months 6 days, from October 1, 1910, to June 9, 1913, and from June 29, 1916, to September 21, 1917, and from September 26, 1921, to date.

Lieut. Commander George N. Barker (second tour), 4 years 6 months 4 days, from September 1, 1913, to June 5, 1915, and from August 31, 1919, to date.

Lieut. Commander Donald T. Hunter (second tour), 4 years 11 months 4 days, from August 27, 1914, to November 7, 1917, and from September 7, 1920, to date.

Lieut. Commander Andrew D. Demney (second tour), 4 years 3 13 days, from September 24, 1914, to November 8, 1917, and from June 1, 1921, to date.

Lieut. Commander William D. Brereton, jr. (third tour), 4 years 6 months 27 days, from June 1, 1911, to August 31, 1911, and from October 1, 1913, to September 30, 1916, and from January 31, 1920, to date.

Professors of mathematics now at the Naval Academy and their length of service there to June 1, 1922:

Capt. Daniel Garrison, from November 9, 1906, to date.

Commander Paul J. Dashiell, from June 28, 1906, to date.

Commander Herbert L. Rice, from September 25, 1907, to date.

Lieut. Commander Theodore W. Johnson, from October 1, 1913, to June 6, 1914, and from August 27, 1914, to date.

STATEMENT OF SENATOR PETER G. GERRY, OF RHODE ISLAND.

NEWPORT, R. I., TRAINING STATION.

Senator PAGE. Senator Gerry, I believe you have something to say to the committee?

Senator GERRY. Mr. Chairman, the training station at Newport, R. I., under the original department proposal, was given \$75,000 simply for maintenance. The bill as passed by the House increased that to \$125,000 with the idea of training men at the station.

Captain Evans testified that for \$225,000 or \$250,000—he seemed to feel that it was possible with \$225,000—they could train to the full capacity of the permanent barracks at Newport, namely, 10,000 men for the year. I therefore ask for a \$100,000 increase in the appropriation.

Now, the House in appropriating \$125,000 had in mind a Navy of 66,000 men. If you increase the Navy from 66,000 to 86,000 men there ought to be a proportionate increase in your training facilities, and therefore it would be reasonable to allow Newport a greater amount than the \$125,000 carried in the House bill. With an increase you can train 10,000 more economically at Newport than anywhere else, and the figures brought out at the hearing before the Naval Affairs Committee, to which your attention is directed, I feel can clearly be made to demonstrate this.

STATEMENT OF HON. THEODORE ROOSEVELT, ASSISTANT SECRETARY OF THE NAVY—Resumed.

INCREASE OF THE NAVY.

Senator PAGE. Now, Mr. Secretary, will you proceed?

Assistant Secretary ROOSEVELT. Mr. Chairman, at the last hearing of your committee you requested the department to furnish you with three schedules on what the department would contemplate doing if three separate courses were taken, in so far as the appropriation "Increase of the Navy" is concerned. I have left a copy in front of each Senator of the schedules that we have prepared.

I have prepared, furthermore, a letter which I have addressed to the chairman, and which I will submit.

(The letter and tables referred to are here printed in full, as follows:)

NAVY DEPARTMENT,
Washington, May 27, 1922.

MY DEAR SENATOR: The department understands that the committee desires us to prepare tabular and other information showing the situation as regards increase of the Navy work in 1923, under three suppositions:

(1) That the Senate makes no change in the present House bill, the money available for 1923 being only the money made available in the House bill.

(2) That in addition to the money made available in the House bill, an additional appropriation of \$10,000,000 be authorized under the heading "Increase of the Navy, construction and machinery."

Senator POINDEXTER. Why do you call it that?

Assistant Secretary ROOSEVELT. Because it is very difficult to anywhere near that—

Senator POINDEXTER. Why not call it "losses"?

Assistant Secretary ROOSEVELT. It is the earnings of Fore River, or whatever it may be. [Continuing reading:]

The fourth column gives the payments proposed in 1923 for the various ships or groups of ships—

In other words, the money we expect to pay out—

and the fifth column gives the amounts proposed to be deferred.

That is, the amounts we hope to be able to defer. [Continuing reading:]

These amounts to be deferred are regarded as the outside limit of what could be deferred upon negotiations with the shipbuilders, and will necessarily involve in the end additional cost.

On the assumption that there is no new money appropriated, the Bureau of Ordnance will be directed to arrange to defer some \$3,000,000 worth of contracts, if possible.

That is, reducing the \$16,000,000 that we had allotted to Ordnance by that amount—over \$16,000,000. If, however, the B of Ordnance is unable to defer those amounts, then we would have to curtail and get back that \$3,000,000 in some other way.

Senator HALE. Where is that in the total—that \$3,000,000?

Assistant Secretary ROOSEVELT. That is added on—the \$3,000 we have put it onto other work here. Ordnance does not appear in the total.

Senator HALE. That does not appear at all?

Assistant Secretary ROOSEVELT. Ordnance does appear; but what has happened is that instead of having the sum that we indicated to you originally we would have, when we allotted ordnance \$16,500,000, for other expenditures, we have to face the situation of having no new money appropriated, and we have taken \$3,000 off of that \$16,000,000 of ordnance and given it to C. & M.

If we are unable to allot this \$3,000,000 to ordnance, we will have to save the money in some other way. The way that we would to save it would be to shut down the Alexandria torpedo works, which will save about \$1,000,000, shut down torpedo works at the Washington Navy Yard, which will save another million dollars, and stop the manufacture of torpedoes at Newport, R. I., and shut down the powder factory at Indianhead, saving another million dollars.

If you want me to do so, I can go now into this, or can wait until later to go into the result of those actions.

Senator NEWBERRY. It is a little confusing to me that the Indianhead powder factory is operated under Increase of the Navy.

Assistant Secretary ROOSEVELT. Admiral McVay, will you answer that?

Admiral McVAY. A large part of it is under Increase of the Navy; yes, sir, practically all of it.

Assistant Secretary ROOSEVELT. A large percentage of it.

Senator HALE. Mr. Secretary, I notice that under the second table you still provide for putting off until next year the payment of \$11,400,000.

—Proposed distribution, increase Navy, construction and machinery, fiscal year 1923, with \$10,000,000 appropriated.

	Approximate obligations as of July 1, 1922, maturing in 1923.	Proposed shipyard expenditures additional to obligations.	Total of proposed earnings, 1923.	Proposed payments in 1923.	To be earned in 1923 but not paid until 1924.
nd West Virginia.....	\$950,000	\$4,660,000	\$5,610,000	\$5,610,000	.....
and Saratoga.....	7,900,000	3,100,000	11,000,000	7,900,000	\$3,200,000
to 6.....	800,000	2,400,000	3,200,000	3,200,000	.....
and 8.....	950,000	2,550,000	3,500,000	3,500,000	.....
and 10.....	300,000	1,630,000	1,930,000	1,930,000	.....
to 13.....	850,000	5,150,000	6,000,000	4,000,000	2,000,000
.....	675,000	25,000	700,000	700,000	.....
st:					
3.....	20,000	1,730,000	1,750,000	1,750,000	.....
47.....	11,700,000	(*)	11,700,000	6,500,000	5,200,000
51.....	52,000	848,000	900,000	900,000	.....
3.....	2,000,000	1,000,000	3,000,000	2,000,000	1,000,000
.....	(*)		120,000	120,000	.....
.....	113,000	57,000	170,000	170,000	.....
.....	26,310,000	23,150,000	49,580,000	38,180,000	11,400,000

gs under fixed-price contract.
 ontracts being for a fixed price, the division between materials and shipyard expenditures is
 by the contractor.
 mpass equipments.

earned.....	\$49,580,000
to be deferred.....	11,400,000
nents to be made.....	38,180,000
money now available.....	28,167,000
.....	10,013,000

—Proposed distribution of funds, increase Navy, construction and machinery, fiscal year 1923, with no money appropriated.

	Approximate obligations as of July 1, 1922, maturing in 1923.	Proposed shipyard expenditures additional to obligations.	Total of proposed earnings, 1923.	Proposed payments in 1923.	To be earned in 1923 but not paid until 1924.
nd West Virginia.....	\$950,000	\$4,660,000	\$5,610,000	\$5,610,000	.....
and Saratoga.....	7,900,000	1,100,000	9,000,000	5,800,000	\$3,200,000
to 6.....	800,000	2,400,000	3,200,000	3,200,000	.....
and 8.....	950,000	1,550,000	2,500,000	2,500,000	.....
and 10.....	300,000	1,630,000	1,930,000	1,930,000	.....
to 13.....	850,000	2,150,000	3,000,000	1,000,000	2,000,000
.....	675,000	25,000	700,000	700,000	.....
st:					
3.....	20,000	1,230,000	1,250,000	1,250,000	.....
47.....	11,700,000	(*)	11,700,000	6,500,000	5,200,000
51.....	52,000	848,000	900,000	900,000	.....
3.....	2,000,000	500,000	2,500,000	1,500,000	1,000,000
.....	(*)		120,000	120,000	.....
.....	113,000	57,000	170,000	170,000	.....
.....	26,310,000	16,150,000	42,580,000	31,180,000	11,400,000

gs under fixed-price contract.
 ontracts being for a fixed price, the division between materials and shipyard expenditures is
 by the contractor.
 mpass equipments.

earned.....	\$42,580,000
to be deferred.....	11,400,000
nents to be made.....	31,180,000
money now available.....	31,167,000
.....	13,000

to the transfer. Mr. Lasker now says that he is agreeable to do it, and says that the rough memorandum of a bill which we have prepared to submit, is agreeable to them. [Continuing reading:]

If \$8,000,000 of obligations of the Submarine Boat Corporation are transferred to the Navy Department to be available in discharging the department's obligations to the Electric Boat Co., the contractor for S-18 to S-47, we will not be compelled to defer \$5,200,000 of payments to the Electric Boat Co. as indicated in Tables 1 and 2, and need pay them in money about three and one-half millions only, instead of six and one-half millions as estimated in Tables 1 and 2. The three millions thus released we would propose to divide equally between the aircraft carriers, the auxiliaries and the fleet submarines V-1 to V-3. This situation is shown in tables appended.

(At this point the subcommittee took a recess for 10 minutes, at the expiration of which time the subcommittee resumed its session.)

Assistant Secretary ROOSEVELT. I was interrupted, Mr. Chairman, and I will start again on the tables. My statement was that as it was the note of the Submarine Boat Co. was put off, our obligation to them, to free whatever cash we had been going to expend for transfer to others. That is why you reduce the proposition to nothing in the right column instead of having \$5,200,000.

ELECTRIC BOAT CO.

Now, it is possible we might be able to get by by getting the Electric Boat Co. to cut down on the cash that we will be paying them over and above this \$8,000,000, which is some \$3,700,000, and defer of that; but I think it is very doubtful, because the Electric Boat Co. is in such a way financially that I doubt if they would be to defer much of that. But any money that they were able to defer in those cash moneys that we would be paying the Electric Boat Co.—Table 3, S-18 to S-47, I am talking about now—any moneys we are able to defer there, we would put the moneys which became available upon the two airplane carriers, the fleet submarines, and the scout cruisers pro rata.

Now, I should think that one of the questions that would naturally occur would be, Why do we show that we are going to certain moneys from certain companies and are not going to them from other companies? That is largely on account of that certain companies we finish with. Where we finish with we do not believe they will be willing to defer at all; or we it will be more difficult to get them to defer. Also, where we carry for one item money, whereas we will defer from particular company and do not under some other item. In payment, we have the same company under both. In words, it happens that they are constructing two ships for us.

Senator HALE. Where would that show?

Assistant Secretary ROOSEVELT. That would not show up wanted to come down here [indicating]. For instance, I come down and tell you just where each of them is being constructed: the *Colorado* at the New York shipyard; the *West Virginia* at the News; the *Lexington* at Fore River; the *Saratoga* at the shipyard. Now, as the *Colorado*, in the first item, is at the New York shipyard, and the *Saratoga*, in the

200,000 of indebtedness, which was deferred or the half of it was deferred, there would come to the same company, therefore, it is carried in the two items. That practically finishes the case, as the Navy views it.

Senator HALE. What would be the effect if you should make this arrangement about having the Shipping Board turn over the \$8,000,000 note of the Electric Boat Co., and we do not give the increase of 0,000,000, that you ask for?

Assistant Secretary ROOSEVELT. The effect would be that we would get about \$3,000,000 cash additional.

Senator NEWBERRY. You do not get any cash; you mean you will get that much more?

Assistant Secretary ROOSEVELT. It is a bookkeeping item. We would free about \$3,000,000 of cash.

Senator HALE. Will you make up a table showing how it will work out under that plan?

Assistant Secretary ROOSEVELT. Yes; I can give it to you now.

Senator HALE. I would like to have it in the record.

Assistant Secretary ROOSEVELT. I can show it to you now in Table 2. We would get about \$3,000,000 additional, and we would distribute it equally between the *Lexington*, the *Saratoga*, the scout cruisers, and the Portsmouth submarines.

Senator HALE. Proportionately?

Senator PHIPPS. About \$1,000,000.

Assistant Secretary ROOSEVELT. Proportionately. We would put it about \$1,000,000 each. You can trace down on these tables, by comparison, just where we have made our cuts. I would like, furthermore, to explain that we do not really do any work at all. We stopped work even though we make certain payments—in Table 2, in advances. For example, you will find auxiliaries in Table 2, \$675,000 a \$25,000, sum total, \$700,000. Proposed payments are \$700,000. That means that we simply pay the obligations.

Senator HALE. What \$25,000?

Assistant Secretary ROOSEVELT. Well, \$25,000 plus. That means, all intents and purposes, that we simply pay the obligations; so that you will see there will be no work done on the auxiliaries under Table 2.

Senator PHIPPS. But they are not finished by any manner of means?

Assistant Secretary ROOSEVELT. They are not finished. They are various stages of completion, all the way from the *Tulsa*—is she launched or is she about to be launched?

Admiral TAYLOR. She is about to be launched.

Senator NEWBERRY. Referring to the memorandum of the 26th of , signed by Admiral McVay, of the Bureau of Ordnance, he says irreducible minimum is \$16,000,000. I presume the admiral can tell us, this afternoon, about that if we do not want to go into it now?

Assistant Secretary ROOSEVELT. I would like to have Admiral McVay appear and explain as to this item to which Senator Newberry refers.

Senator NEWBERRY. If it is understood that this \$16,000,000 is the irreducible minimum to be allotted out of the \$44,000,000—

Assistant Secretary ROOSEVELT. No; I have given you my views on Table 2. It is not \$16,000,000; it is \$13,218,000.

Senator NEWBERRY. Then \$13,000,000 is the irreducible minimum!

Assistant Secretary ROOSEVELT. \$13,000,000 is, in my opinion, the irreducible minimum. It depends on what you mean. If I do not get any more money, the \$13,000,000 is what I will do.

Senator NEWBERRY. That is what you will do if you do not get any more money. That is irreducible, according to ordinance!

Assistant Secretary ROOSEVELT. So far as the action I will take goes.

Senator NEWBERRY. All we have got to do is to find out why it is irreducible.

Assistant Secretary ROOSEVELT. Why \$13,000,000 is irreducible!

Senator HALE. That includes the cutting out of some items that you do not very much want to see cut?

Assistant Secretary ROOSEVELT. I want to make that clear. Senator. I mean by reducing ordinance to \$13,218,000 the probabilities are, or the possibilities are, that we would have to cut out certain things which we would consider as a naval disaster—cutting out the Newport Naval Torpedo Station; discharging a thousand people who have been there for a long, long time.

Senator NEWBERRY. That is appropriated for in another part of the bill?

Assistant Secretary ROOSEVELT. Yes; but only in part.

Senator NEWBERRY. You do not want to talk about closing up, because the money is appropriated to keep it open.

Assistant Secretary ROOSEVELT. To keep it half open; not to let it really open. We can manufacture no torpedoes. We can, under the condition to which I refer, maintain Newport only as for repair and overhaul.

Senator NEWBERRY. Well, there is some difference between shutting it up and not keeping it really open.

We have \$1,900,000 for work under the Bureau of Ordnance in those places, plus \$900,000 for salaries in those places, plus \$100,000 for experiments in those places, and \$1,800,000 for contingencies in those places, no part of which is spent anywhere else.

Assistant Secretary ROOSEVELT. It is not quite accurate to say in those places, because, for instance, we are not closing the Washington Navy Yard, and that is one of the places that eats up a very large amount of that \$9,000,000. However, I would prefer to have A. A. McVay take up the question in detail rather than attempt to go into it myself, because I might misstate some of the details.

Senator PAGE. How much longer will you want, Mr. Secretary!

Assistant Secretary ROOSEVELT. I am through now, Senator.

(Thereupon, at 1 o'clock p. m., the subcommittee adjourned until Wednesday, May 31, 1922, at 11 o'clock a. m.)

NAVY DEPARTMENT APPROPRIATION BILL.

WEDNESDAY, MAY 31, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

subcommittee met, pursuant to adjournment, at 11 o'clock a. m.,
or Carroll S. Page presiding.
sent, Senators Page (chairman), Poindexter, Hale, and New-

INCREASE OF THE NAVY.

MENT OF REAR ADMIRAL CHARLES B. McVAY, JR.,
TED STATES NAVY, CHIEF OF THE BUREAU OF ORDNANCE—
imed.

ator PAGE. Admiral, will you proceed?

niral McVAY. After going into the question of the bill author-
the Secretary to reapportion funds now available in the Bureau
dnance so that they might be available under the Bureau of
ruction and Repair and under the Bureau of Engineering, so
ork on ships could continue, it was decided that the best pro-
e would be to take \$28,000,000 of the balances and leave \$16,-
0 to carry on the work of the Ordnance Bureau.

chief items covered by this money are for fire-control installa-
and some particular projectiles for the new ships.

contract obligations are \$9,594,985; so that from the \$16,000,000
is but \$6,623,015 for other necessary work on vessels under con-
ion.

decision of the department was to continue work on three bat-
ps—that is, the *Colorado*, the *Maryland*, and the *West Vir-*
—four scout cruisers, the two airplane carriers, the submarines,
xiliaries, and then the remaining scouts, 10 scouts in all, and
were apportioned accordingly.

first question of the committee was, "What construction can
tinued if no money is appropriated?" If no money is appro-
d (and the other bureaus require a new appropriation of not
ian \$10,000,000 under increase of the Navy, construction, and
nery) it would mean—and the Secretary has thought it wise—
e a further \$3,000,000 from the Bureau of Ordnance. If \$3,-
0 in addition to the money already taken is transferred from
u of Ordnance funds, that leaves \$3,623,015 for new construc-
ext year.

en the Secretary pointed out the necessity for this curtailment,
atter was discussed in council as to what should be done, and I

was directed to confer with the largest contractors to see if they would defer payments. There are but two large contractors, one the General Electric Co., whose contracts amount to several million dollars, and another, the Hadfield-Penfield Co., of Bucyrus, Ohio, which has a contract for projectiles. There are certain conditions surrounding that latter contract which make it inadvisable to ask for a deferment of payment, because I know quite well, and the department knows, that if any payments were deferred that company might go into bankruptcy, and if this should happen the Government would lose about \$700,000.

The other company is the General Electric Co., and I got their manager in this city on the telephone and told him the condition that I wished he would please take up with his company at question whether it would defer payments to the extent of \$3,000,000 under the fire-control contracts. I received a letter from him that he had taken it up with the chief officials and they did not think they could do it; and the reason they did not feel they could do it, because they now had, under the scrapping bill, many millions of dollars of deferred work which they were carrying for the Government, I think, to somewhere in the neighborhood of \$20,000,000. This is the status of the case to-day. Of course, if I have to go further, it means that I shall have to take it up with the board of directors and tell them that we are strapped, and please to consider it, which I will do.

Senator PAGE. Now may I interrupt you to ask, Is there a necessity for our borrowing and borrowing and borrowing while we pay that we owe to the extent we do?

Admiral McVAY. So far as the Bureau of Ordnance is concerned, Mr. Chairman, all the money kept back this year will have to be appropriated next year, or else we will be unable to finish our work on the ships; and we would require about \$15,000,000 next year—I think now it is up to something like eighteen or twenty millions; and from a business standpoint I am very sorry to see the work postponed, because at the present time we are making contracts that are favorable to the Government. In fact, in the last several months the most of our contracts for material have been placed below the cost of manufacture. I know that from checking the costs in Government plants, and I know that from the statements of these big business men whom I know personally. They are trying to maintain an organization, and so should we.

Now, failing to have the General Electric Co. defer this \$3,000,000, then the question was, What could the Bureau of Ordnance do? I have told the Secretary and explained to him, and he approved, that the only way to do was to simply cut off a \$3,000,000 allotment in the best way we could and still conduct some of the work.

ALEXANDRIA TORPEDO STATION.

I took the Alexandria Torpedo Station and found that our allotment there would be something in the neighborhood of \$500,000 for work on torpedoes, and I recommended that if we could not defer payment we should shut that up.

Senator NEWBERRY. Is there no allotment under your other appropriations?

Admiral McVAY. No, sir; practically none—very little, except for upkeep, but none for manufacture. But, of course, there will still be an expenditure from Ordnance and Ordnance Stores for maintaining the stations in a condition of readiness for operation. But the money for new construction purposes is for torpedoes for ships, and we are short, as I have explained to the committee, very short of torpedoes.

DISCONTINUANCE OF TORPEDO MANUFACTURE AT NAVAL GUN FACTORY.

The other thing was to stop work at the Naval Gun Factory on the manufacture of torpedoes, thereby saving another half a million dollars.

TORPEDO STATION, NEWPORT, R. I.

Third on the list is the torpedo station, Newport. That is our chief, and eventually will become as it has been in the past, our principal station for the manufacture of torpedoes.

Senator PAGE. Newport, R. I.

Admiral McVAY. Newport, R. I.

Senator PAGE. Have we ample buildings there to do that profitably?

Admiral McVAY. Absolutely; and we are doing it. Then I was going to pick up a million dollars there by stopping the manufacture of torpedoes and maintain that station only for repair and overhaul of torpedoes, as you know, are very expensive for upkeep and over-

haul of their engines, and that sort of thing; and for issuing parts—we make parts there. I would run that station on about half the money, and that would mean the discharge of somewhere in the neighborhood of a thousand men, men that it has taken us 20 years to collect, and who really are an asset to the Government. It would mean that they would go.

RETAILMENT OF PRODUCTION OF POWDER—NAVAL POWDER FACTORY, INDIANHEAD, MD.

The fourth on the list, to cover the other million dollars, is at the naval powder factory, Indianhead, Md. There is an institution that it has taken us 30 years to build. If we close it, those men will disappear; and in case of emergency, I doubt that we could get them together quickly. It has a capacity at present equal to our needs, and we are making powder cheaper than we can buy it elsewhere. But, in order to maintain the organization, it was my intention to keep it operating with the lowest possible number of men. I found that while that would increase the cost of the powder between 12 and 15 cents a pound, yet that increased cost of the output would be less than maintaining the station without working it, so that it was good business to continue.

Senator HALE. How much powder are you making per day there now?

Admiral McVAY. I was going to reduce that—we are gradually reducing it, so as not to make it too hard on the workmen. We are making over 12,000 pounds per day (an average of about 12,500

pounds a day), and I am reducing that to 5,000 pounds per day on the 1st of July.

Senator NEWBERRY. What is your daily cost of operation there now?

Admiral McVAY. Our powder costs—

Senator NEWBERRY. No; pardon me; I do not mean the cost of powder. What is your present pay roll at Indianhead?

Admiral McVAY. Our present allotment at Indianhead is about \$6,000 a day. At 5,000 pounds per day it will run about \$600,000 a year.

Senator HALE. What is the pay roll when you are running full?

Admiral McVAY. We have never run at full capacity, because it has not been necessary. It was built for full capacity during the war.

Senator HALE. Of course, your pay roll would increase greatly as you produced more and more powder?

Admiral McVAY. Well, no; it will not; because I have for the last year been running the factory with the lowest possible number of men to keep it operating. I found that it was turning out 6,000 pounds a day, and the cost of powder was pretty high, so that I directed the inspector in charge to increase his capacity so the output would be as large as possible with the force employed, thereby reducing the cost considerably.

Senator HALE. Reducing the cost of the powder?

Admiral McVAY. Yes; reducing the cost of the powder.

Senator HALE. And now you propose—

Admiral McVAY. Now, I propose to go back to 5,000 pounds a day.

Senator HALE. And still keep the same number of men?

Admiral McVAY. Oh, no; I am reducing by about 100 men.

Senator HALE. Out of how many?

Admiral McVAY. Out of 600.

Senator HALE. Where is the economy in doing that?

Admiral McVAY. The economy in doing that is—

Senator HALE. And paying higher for your powder?

Admiral McVAY. Simply because, if I do not do that, I will have to shut down the plant, and the additional cost of the powder is less than the cost of maintenance when shut down—considerably less.

Senator NEWBERRY. What is the wastage of powder in the Navy? I mean, you are making 5,000 pounds a day, which is 1,500,000 a year?

Admiral McVAY. The 5,000 pounds a day will cover our target practice requirements that are not already filled, and will also provide powder for the new ships—that is for the airplane carriers.

Senator NEWBERRY. That would be true two or three years from now?

Admiral McVAY. It will be two years, possibly, before the powder will be required; but it is better to go ahead and make it now than to let all these people who know how to make it get away.

Senator NEWBERRY. How much have you got on hand?

Admiral McVAY. None of that 8-inch powder for these new ships. You know, the Limitation of Armament Conference limited the battery to 8-inch guns on anything except capital ships. We had no

h guns of any particular value, and it was necessary to design which we did. And, of course, each type of gun requires a separate type of powder. It is just like any other engine. I know all of will understand the comparison when I say that you can not run a steam engine with steam, and you can not run an 8-inch gun with black powder. It is just about the same thing.

Senator HALE. Admiral, what would be the maximum capacity it works, with 500 men?

Admiral McVAY. I should think we might turn out 10,000 pounds a day.

Senator HALE. Then I can not understand why you should keep the same number of 500 men and have them only turn out 5,000 pounds a day.

Admiral McVAY. Because that is all the powder in sight to make.

Senator HALE. Then why not cut down your force?

Admiral McVAY. Because it takes so many men along the powder of the factory. You know, it extends about a mile, or a mile and a half, with the different buildings all along the line, separated in different valleys, so that an explosion of one unit would not affect the others. That is the general custom throughout the world, to build a powder factory in that manner.

Now, you have to have a certain number of men at each of these plants; at your pulping plant and your pressing plant, in your coal plant in the acid plant and that is the least number of men which you can run the plant. It would not be safe to run the plant at any lower number than that. We could not do it.

Assistant Secretary ROOSEVELT. May I ask a question to see if I get it clearly? Admiral, I understand, then, the alternative is this, if you reduce below that point, you have to close down entirely?

Admiral McVAY. Yes.

Assistant Secretary ROOSEVELT. And that the overhead expenses of running the plant in a closed down condition would then be practically added to the cost of the powder which is produced elsewhere, computing the difference between that and the 12 cents additional per pound of which you speak, incident to running the plant, you have described?

Admiral McVAY. Yes.

Senator HALE. Well, if it was closed down, what would you need for the cost of maintenance?

Admiral McVAY. The inspector has figured about \$225,000 a year to keep.

Senator HALE. In time of war it would be absolutely necessary to do this?

Admiral McVAY. Yes; and we have kept it. You see, we are in a very difficult transition period at present. The commercial powder mills, of course, are shutting up their factories, and their men are going away, and here is a Government-owned powder factory that could start right up and turn out a large quantity per day, if needed it, for either the Army or the Navy, or for anybody else; the same thing applies to torpedoes. The Bliss people are going into commercial business. They have no orders, and there are none left for them. I would like very much, and I had the Secretary's approval, to place an order with the Bliss Company for a couple

of hundred torpedoes, merely to keep them going as a Government asset; and not only as a Government asset, but as a saving to us on royalty on torpedoes; but I can not do that now.

CHARLESTON, W. VA., ARMOR-PLATE PLANT.

The other thing that closes up is the naval ordnance plant. Representatives of the big armor manufacturers tell me they are going to close up. They can not maintain their plants in idleness for a period of 10 or 15 years, so that they are going to close up; and it will cost us \$125,000 a year to keep up the Charleston plant. Next year it is going to cost more, but it is good insurance.

Assistant Secretary ROOSEVELT. That is at Charleston.

Senator PAGE. Will you explain about the deterioration of this powder?

Admiral McVAY. The powder we manufacture will last at least 20 years.

Senator NEWBERRY. You mean, if properly cared for as to temperature?

Admiral McVAY. It will be in good condition. I am glad that you asked that question.

Senator NEWBERRY. I just happened to know that somebody was going to make that statement, that I thought ought to be modified by the statement that it requires constant care and attention.

Admiral McVAY. It requires care and attention; and yet, when we found ourselves scrapping all these ships and the ammunition and all that, I sent instructions to the inspector at Indianhead to look up the question of selling the powder for commercial purposes, particularly with reference to fertilizer, and a week later I got some samples back from him. They had an explosion down there in 1910. I think it was—at any rate, over 10 years ago—and a lot of this powder was scattered, and they dug it up and it had not changed its form at all. Of course, it would not be good powder for firing, but it showed to me that it would not be very valuable for fertilizer if it did not change in 10 years, so that I dropped that. We have gone extensively into the commercial questions—that is, into the commercial use of our surplus materials—and made all the plans we can for it; and then, also, naturally I have made a study of the running of these different plants to see how to do it more economically.

Senator NEWBERRY. Just what is your surplus of material?

Admiral McVAY. Do you mean the value?

Senator NEWBERRY. No; the character of it. What is the surplus material that you have?

Admiral McVAY. At the present moment we have use for everything except some old 13-inch guns and their ammunition and some old 10-inch guns and their ammunition. Everything else is carried subject to location in time of emergency.

Senator NEWBERRY. To go back to the proposed allotment of \$13,000,000 or \$16,000,000 that the department laid aside for ordnance out of the \$44,000,000 that was expected to be available for increase of the Navy on the 1st of July, I assume that the \$9,000,000 that you say is to come due under contracts this year is for new material that will be delivered this year?

Admiral McVAY. It is all over. Wherever we have an ordnance shop anywhere, part of the money goes there for upkeep and material.

Senator NEWBERRY. So that of this increase of the Navy appropriation there will be \$9,000,000 spent in various ordnance shops?

Admiral McVAY. In the various ordnance shops and in purchasing from private manufacturers. For instance, at the present time—just this morning I have recommended the award of a contract for re-running guns to the Midvale Co. and also one to the Bethlehem Steel Co. There are 10 guns, and that will cost about \$400,000. The way, as you know, requires that we do work at Government yards except under two conditions. The first is that we can get it done cheaper outside. Then we can place contracts with commercial concerns. The other condition is that no Government plant can do it within the time required. It so happens that these guns are required for re-running one of our battleships, and we can not do it at the Naval Gun Factory within the time required, and also, the price quoted by these two companies is reasonable, so that we are placing the contracts with them. And there is quite a percentage of our contracts that is placed with private concerns.

Senator HALE. As a general rule, can private parties manufacture cheaper than the Government?

Admiral McVAY. I have not found it so in ordnance plants.

Senator HALE. You have not found it so?

Admiral McVAY. No, sir.

Senator HALE. Can they do it in a shorter time?

Admiral McVAY. Our plants?

Senator HALE. No, the outside plants?

Admiral McVAY. Very frequently the commercial concerns can do it in a shorter time; but, for instance, we have to certify that the price is reasonable, and the way that I am able to do that, so far as my bureau is concerned, is to get a cost from a Government plant, and then add a certain proportion for the expenses that we do not have.

Senator HALE. What proportion of your last year's appropriation being used for commercial concerns?

Admiral McVAY. About 15 per cent for 1922.

Senator NEWBERRY. Of these appropriations?

Admiral McVAY. Of orders placed. Now, of this particular appropriation, where we cover upkeep and all that sort of thing, the percentage would not be over 20 for 1923 I think.

Senator NEWBERRY. I was asking about last year's appropriation. You said about 15 per cent.

Admiral McVAY. Yes; but Senator Hale was pointing out this one appropriation which is for the upkeep of plants, and most of the money goes for that.

Senator HALE. No; I simply meant the appropriation that was to go to manufactures.

Admiral McVAY. Manufactures?

Senator HALE. Yes.

Admiral McVAY. A large percentage of that.

Senator NEWBERRY. Almost all of that, but very little of the other?

Admiral McVAY. Almost all of the increase of the navy, armor and equipment, goes to outside purchases.

to keep them going as a Government asset, but as a saving to us on the expense of keeping them going at that time.

CHARLESTON NAVAL AMMUNITION PLANT.

The first thing that comes up is the naval ordnance plant. Representatives of the big arms manufacturers tell me they are going to close up. They will not maintain their plants in idleness for a period of 10 or 15 years; that they are going to close up; and it will cost a \$100,000 a year to keep up the Charleston plant. Next year they will not be there, but it is good insurance.

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al McVAY. Yes, sir.

or NEWBERRY. And you will have either \$3,000,000 or \$6,000,-
additional work that you have not yet contracted for?

al McVAY. Yes.

or NEWBERRY. In various operating units of the Bureau of
e?

al McVAY. Either in the operating units or with the com-
concerns.

ORDNANCE AND ORDNANCE STORES.

or NEWBERRY. Now, so that the committee can understand
ll be operative regardless of increase of the Navy, can you
you have allocated that \$9,500,000 appropriated under ord-
d ordnance stores?

al McVAY. I have the \$16,000,000—

or NEWBERRY. I am talking about another appropriation.

al McVAY. I do not think I brought that paper down. The
estimate was for \$13,130,000, and the estimates submitted by
rent technical sections of the bureau, of which there are 20,
l to some \$25,000,000. I cut that to the \$13,000,000.
at was to cover the work which I will outline shortly. But
iding upon the amount a new wage schedule was gotten out
ction of about 12½ per cent, and there was also a reduction
al.

the Conference on the Limitation of Armaments met and
the ships, and I was able to save a million dollars flat on
ployees. So that I reconsidered these items and submitted
ate for \$10,700,000 to the House Appropriation Committee;
I stated when before this committee previously, the chair-
the House committee informed me that he was very much
and could inform me that he did not think that the esti-
ld be reduced at all and if it was, it would be very little.
duced to \$9,500,000, which, if it passes, will necessitate my
ff \$1,200,000 in work which I proposed to do. But I have
that cut yet, because I hoped that after I had cut it down
as I thought it was good business to cut it, the committees
it it back to \$10,700,000. I intended to spend that as fol-

ms, which includes the overhaul of all guns—you under-
t under the appropriation "Ordnance and ordnance stores."
vers work on vessels and their equipment which are already
to the Government; the appropriation "Increase of the
mor, and armament," covers material and expenses on ships
e building—so that the original estimate under the gun
which covers relining guns and work on mounts, and that
ing, was \$900,000.

urrent-mount section, which included overhauling turret
nd in certain cases bringing them up-to-date, adding new
nts for director fire, was \$300,000.

owder and explosive section includes ammunition depots, of
have in the neighborhood of 20; \$1,567,600.

pedo section includes the maintenance of torpedo stations
overhaul of torpedoes; \$1,450,000.

Assistant Secretary ROOSEVELT. It is just the reverse, in each case. Admiral McVAY. In other words, 70 to 75 per cent.

Assistant Secretary ROOSEVELT. That is what I mean: of this appropriation, only 20 per cent for outside purchases.

Admiral McVAY. Yes, and in the other appropriation, 70 to 75 per cent.

Senator NEWBERRY. You had better make that plain by saying, of increase of the navy, 70 per cent, and ordnance and ordnance stores, 20 per cent.

Assistant Secretary ROOSEVELT. Ordnance and ordnance stores, 20 per cent.

Senator NEWBERRY. You stated a moment ago that the present rate of production of powder at Indianhead cost about \$6,000 a day, which makes about \$1,800,000 a year. In the bill is a small item for the purchase and manufacture of smokeless powder, \$167,000. I have no doubt that is all explained in the record, but will you just make a statement here as to what that \$167,000 is for?

Admiral McVAY. Occasionally we have a cause for reworking a small amount of powder; but, in addition to that, we are making a particular type of powder which is not covered by any other appropriation.

Senator NEWBERRY. Under another appropriation you have, for experimental purposes and other things, \$205,000.

Admiral McVAY. That is for experimental work; but that is not used for the powder. That is for various other matters.

Senator NEWBERRY. It can be used for powder. Powder is included in it.

Admiral McVAY. It can be; but we have separated the two so that we can explain to you what it is to be used for, and there is no connection between the two appropriations.

Senator NEWBERRY. The language is the same in the items. It says, "For purchase and manufacture of smokeless powder," and then, under the Bureau of Ordnance, it says, "For experimental work in the development," and expenses in connection therewith, "including the purchase of armor, powder," etc.

Admiral McVAY. Senator, that money can be used for development. In the experiments we could, if it was necessary or advisable, use some of that money for developing the experimental process; but once that is finished and we wish to purchase or manufacture powder, we must have an appropriation for it.

That is exactly what is happening now. We are spending a little in the development as it goes along and purchasing powder of a particular type for a particular purpose.

Senator NEWBERRY. Do you turn these developments over to a commercial concern?

Admiral McVAY. A commercial concern is doing this particular development for us.

POLICY OF DEPARTMENT IN RELEASING INFORMATION CONCERNING EXPERIMENTAL WORK.

Senator POINDEXTER. I want to ask you about the policy in the department in giving out information about experimental work and new devices which have been developed in the Navy. Here I noticed

Admiral McVAY. It is all over. Wherever we have an ordnance shop anywhere, part of the money goes there for upkeep and material.

Senator NEWBERRY. So that of this increase of the Navy appropriation there will be \$9,000,000 spent in various ordnance shops?

Admiral McVAY. In the various ordnance shops and in purchasing from private manufacturers. For instance, at the present time—just this morning I have recommended the award of a contract for reeling guns to the Midvale Co. and also one to the Bethlehem Steel Co. There are 10 guns, and that will cost about \$400,000. The Navy, as you know, requires that we do work at Government yards except under two conditions. The first is that we can get it done cheaper outside. Then we can place contracts with commercial concerns. The other condition is that no Government plant can do it within the time required. It so happens that these guns are required for regunning one of our battleships, and we can not do it at the Naval Gun Factory within the time required, and also, the price quoted by these two companies is reasonable, so that we are placing contracts with them. And there is quite a percentage of our contracts that is placed with private concerns.

Senator HALE. As a general rule, can private parties manufacture cheaper than the Government?

Admiral McVAY. I have not found it so in ordnance plants.

Senator HALE. You have not found it so?

Admiral McVAY. No, sir.

Senator HALE. Can they do it in a shorter time?

Admiral McVAY. Our plants?

Senator HALE. No, the outside plants?

Admiral McVAY. Very frequently the commercial concerns can do in a shorter time; but, for instance, we have to certify that the price is reasonable, and the way that I am able to do that, so far as the bureau is concerned, is to get a cost from a Government plant, and then add a certain proportion for the expenses that we do not have.

Senator HALE. What proportion of your last year's appropriation is being used for commercial concerns?

Admiral McVAY. About 15 per cent for 1922.

Senator NEWBERRY. Of these appropriations?

Admiral McVAY. Of orders placed. Now, of this particular appropriation, where we cover upkeep and all that sort of thing, the percentage would not be over 20 for 1923 I think.

Senator NEWBERRY. I was asking about last year's appropriation. You said about 15 per cent.

Admiral McVAY. Yes; but Senator Hale was pointing out this one appropriation which is for the upkeep of plants, and most of the money goes for that.

Senator HALE. No; I simply meant the appropriation that was to be for manufactures.

Admiral McVAY. Manufactures?

Senator HALE. Yes.

Admiral McVAY. A large percentage of that.

Senator NEWBERRY. Almost all of that, but very little of the other?

Admiral McVAY. Almost all of the increase of the navy, armor and equipment, goes to outside purchases.

in fact, of its progress, in giving out more or less sensational news statements about the devices that it is developing to carry on naval warfare.

Assistant Secretary ROOSEVELT. The department has always, since the present administration, and I believe previous to that, adopted the policy of giving out nothing until they were sure that it had become sufficiently public property to be known by all those who were really interested, and after that had been the case it was willing to give out to the general public the information.

Senator POINDEXTER. Here is another matter I noticed in a publication. What there is in it I do not know. I wanted to ask you about it. This item is dated "Tokyo, May 26." [Reading:]

Japan to spend two hundred and eighty millions for new ships. Money to be expended over five-year period. Naval stations planned. By International News Service. Tokyo, May 26, the Japanese naval council, which is considering shipbuilding plans, was reported to-day to have decided upon the construction of \$280,000,000 worth of ships and naval stations.

It was understood that the council decided to speed up the program for auxiliary construction to prevent shipyard depression due to curtailments decided upon at Washington.

The \$280,000,000 is to be spent over a period of five years in the construction of 6 first-class cruisers, 9 second-class cruisers, 29 destroyers, 30 submarines, 2 airplane carriers, and 14 special-service vessels.

It is understood that the council has further agreed to build naval stations at Maczura and Port Arthur.

The personnel of the Navy is to be cut by demobilization of 900 officers and 10,000 men.

Have you any information as to whether or not that is accurate, as to their intention of establishing new naval bases and the construction of six first-class cruisers?

Assistant Secretary ROOSEVELT. Senator, I would prefer to make that statement in executive session, if you have no objection. That is something that I would like not to talk about otherwise.

Senator HALE. Was that given out by you or the department?

Assistant Secretary ROOSEVELT. No.

Senator POINDEXTER. It comes from Tokyo, it says.

Assistant Secretary ROOSEVELT. It comes from Tokyo.

Senator POINDEXTER. And it being Japanese, we want to keep it very quiet?

Assistant Secretary ROOSEVELT. I would be delighted to go into it, but I would prefer not to go into it in open session.

Senator POINDEXTER. Very well.

Senator PAGE. Is there anything further, Mr. Secretary?

Assistant Secretary ROOSEVELT. Nothing, except that I have handed to the gentlemen of the committee here copies of a fourth table comprising what Senator Hale asked for the other day, which contains the situation the Navy would be in if the bill was left as it comes from the House, except that the \$8,000,000 of indebtedness is transferred from the Shipping Board to the Navy Department. In brief, it is just as we outlined it at the hearing: \$1,000,000 would be freed, thereby, which would go on the battle cruisers, \$1,000,000 on the scouts, and \$1,000,000 divided between the S-8 to S-13 and the V-1 to V-3.

Senator POINDEXTER. Have you done anything toward getting the bill introduced for the \$8,000,000 from the Shipping Board?

day before yesterday an article with these big headlines in a newspaper: "Plane and crew shot off warship. Success of catapult aboard *Maryland* makes huge craft still fighting unit of fleet. Reply to sky bombers. Puts America in lead of world. Shipping Board to use device on merchant vessels."

Then, proceeding, it gives a more or less circumstantial account of what the Navy is doing, how it is equipping the battleships with catapults, and the success which it has met with. What is the object of publishing to the world what the Navy is doing in such matters as that?

Assistant Secretary ROOSEVELT. The policy of the department, Senator, is that when any invention becomes known by all those to whom it might be of interest, then it is perfectly free to be given to the world. For example, Senator, long before the general public knows, the interested military branches of the other Governments had been acquainted with the development.

Senator POINDEXTER. Have you become acquainted with what Japan is doing in that respect?

Assistant Secretary ROOSEVELT. To a large extent; yes, sir.

Senator POINDEXTER. I notice that it is very difficult, when we attempt to get any information here about what developments the Japanese are making with their ships, to get it. Very frequently we are met by the statement on the part of the Navy Department that it is impossible to obtain the information.

Assistant Secretary ROOSEVELT. Yes; on certain things it is impossible. On other things it is perfectly possible. I would call attention to the fact, Senator, in that connection, that the Navy Department furnished the Secretary of State with the information which he based the plan he laid on the table at the beginning of the conference.

Senator POINDEXTER. That did not include any information whatever about naval devices or naval developments, or types of—

Assistant Secretary ROOSEVELT. Oh, it did, Senator. I would like to correct that. It included absolute information about types and developments of all of the projected ships of the various nations.

Senator POINDEXTER. I beg to differ with you. I heard him make a speech and I heard what he laid on the table, and it stated certain vital ships. There was nothing there about any devices of the ships, or any dimensions, or even about the lines of the ships. He said they were capital ships, some battleships.

Assistant Secretary ROOSEVELT. He did not lay that on the table, that he had that information in his hands.

Senator POINDEXTER. That is entirely different. You said that he laid it on the table.

Assistant Secretary ROOSEVELT. I think, if you will look back in the record, you will see that I said "which enabled him to lay on the table." Those were the premises from which the conclusions were reached.

Senator POINDEXTER. That is not what I am speaking about. I am speaking about what was laid on the table, and what was published in the newspapers, and I just wanted to comment on it. It seems to me to be the policy of the department to keep a little ahead,

in fact, of its progress, in giving out more or less sensational news statements about the devices that it is developing to carry on naval warfare.

Assistant Secretary ROOSEVELT. The department has always, since the present administration, and I believe previous to that, adopted the policy of giving out nothing until they were sure that it had become sufficiently public property to be known by all those who were really interested, and after that had been the case it was willing to give out to the general public the information.

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assistant Secretary ROOSEVELT. I am seeing Senator Jones about it noon to-day. I think that I advised you on Monday that the Mapping Board had approved it.

Senator POINDEXTER. Yes; well, if there is nothing further I would like to have a few minutes in executive session.

Thereupon, at 12 o'clock m., the subcommittee went into executive session, at the conclusion of which the subcommittee took a recess at 2 o'clock p. m.)

AFTER RECESS.

The subcommittee reconvened at 2.30 o'clock p. m., pursuant to the ending of recess.

STATEMENT OF HON. A. E. B. STEPHENS, MEMBER OF CONGRESS FROM THE STATE OF OHIO.

INDIANHEAD, MD., AND DAHLGREN, VA.

Mr. STEPHENS. Gentlemen, I presented this question on the abandonment of Dahlgren before the House on April 18. In the Congressional Record of April 18, on pages 6180, 6181, and 6182, you will find a discussion of the question of the closing down of Dahlgren. I have investigated quite considerably Dahlgren and Indianhead. It was brought to my attention more than a year ago that we were constructing a building for the commandant at Dahlgren at a cost of \$100,000. I began to investigate to see whether it was true that we were spending \$100,000 for a commandant's home at Dahlgren. That way I became interested and have gathered some facts concerning Dahlgren, and also Indianhead.

We find that Admiral Earle, who was at the head of the Bureau of Ordnance, appeared before the Naval Affairs Committee of the House and presented the facts, asking for an appropriation of a million dollars to purchase land and erect the necessary activities to establish a lower proving station auxiliary, as we supposed, to Indianhead.

The hearings at that time presented the fact that \$1,000,000 were asked for. It was asked of Admiral Earle:

Have you ascertained about what it will cost to purchase the land and install plant?

Admiral EARLE. Yes, sir; a million dollars covers it.

Mr. BUTLER. Will the admiral leave that itemized statement, and also the map, that we can look at it?

Admiral EARLE. Yes, sir.

And he left Exhibit A. So that, before the Naval Affairs Committee of the House, asking for an appropriation of \$1,000,000, primarily for activity, Exhibit A was presented to the committee, showing that \$1,000,000 would supply the ground and the necessary activities. The table is given here, beginning with a railroad for \$175,000; a dock and bridge, \$100,000; 1,000 acres of land, \$100,000; magazines, oil house, gun pits, power house, employees' barracks, \$24,000; purchase or erection of quarters, \$50,000; bomb roof, \$30,000; lookout towers, \$17,000; screen poles, \$5,000; workshop, \$10,000; small-boat storage and blocks, \$4,500; office, chronograph room and instru-

ments, \$15,000; steam locomotive or crane transfer, \$15,000; water system, \$5,000; telephone system, \$1,000; ranging station, land, and shelters, \$10,000; miscellaneous, \$25,000; amounting to \$1,000,000.

The appropriation was made, and shortly after, I do not know whether it was five or six months or seven months, Admiral Earle went before the Appropriations Committee of the House—long before this million dollars was spent or, perhaps, very little of it was spent—and asked for an appropriation under the deficiency bill of \$980,000. That was carried on the deficiency appropriation bill—\$980,000 for proving grounds and facilities.

I have asked a good many members of the Naval Affairs Committee of the House if they knew of this appropriation, and I have not found any of them yet that at that particular time were aware of this additional appropriation of \$980,000.

I have here some of the hearings. I do not know whether it would be worth while reading from them. Mr. Britten asked a question of Admiral Earle about the expenditure of the money, and the admiral replied:

We are going to reduce it to the very smallest amount that we can get along with.

Mr. BRITTEN. Because your estimate was reduced \$1,000,000, or 50 per cent you are not going to reduce your purchase of land 50 per cent, are you?

Admiral EARLE. No, sir; we are going to try and come within the estimate if we possibly can.

Mr. BRITTEN. And get the necessary amount of land?

Admiral EARLE. We will get the necessary amount of land, and questions of that kind.

But the whole thing resolves itself here down to the fact table was presented to the Naval Affairs Committee that it cost \$1,000,000. They were perfectly willing to spend \$1,000,000 for a lower proving station. There was nothing said in it that they were going to build fine houses, fine homes, a great house, great administration buildings, 4½ miles of rail for both seaplanes and landplanes, and build up a great station that would cost \$3,250,000 probably when they got through. In lowering this appropriation, I afterwards asked for a table of expenditures, which appears on page 6182 of the Congressional Record of April 18, and which shows a total of \$2,145,607.08. That includes \$208,777 for 4½ miles of rail; includes \$56,000 for a sewer system; \$71,000 for a fire system; for lighting and power circuits, \$25,000; a stalling chronograph system, \$37,798; administration 1980; here they have commandant's quarters, \$4,000; type houses (quarters for assistant inspector, proof experimental officer), \$83,323.30—that is, for three cadia-type houses, \$30,144.82; two type A battery gun emplacements (main battery, and also emplacement battery), \$146,619.33; seaplane hangar, \$32,602.96; gar, \$5,301.92; proof officer's office and physical laboratory, \$46; bombproof and powder-heating house main 8 four-room cottages, \$42,337.69; 46 cottages, erected Housing (Corporation), \$67,378.47; Gambo Creek contract for driving piles, etc., \$15,807). \$50,124.12; two

mitories, \$50,358.69. So that all of these expenditures at Dahlgren, or a large part of them, as you can see, have been for officers' quarters, officers' homes, dormitories, etc., and for the real activity at \$146,619 has been spent.

The CHAIRMAN. These are estimates; they have not been spent, have they?

Mr. STEPHENS. Yes, sir; they have been spent. The amount is \$45,607.08.

The CHAIRMAN. You would practically throw that away.

Mr. STEPHENS. This is a duplication, largely, of Indianhead. During the war they spent at Indianhead over \$7,000,000—\$7,124,000. They spent that in building their railroad down there; they have it in building new officers' homes, and fixing it up completely at Indianhead. Now they go from Indianhead down to Dahlgren.

The CHAIRMAN. How far apart are they?

Mr. STEPHENS. About 42 miles by water; by land it is about an hour and a quarter's drive in a machine to this side of the Potomac. When you take some kind of a water conveyance and go, I think, 5 or 6 miles across the Potomac to Dahlgren. On that side of the river they have not a railroad within 40 miles of it. If the river should freeze up in the wintertime, Dahlgren is absolutely isolated. The only way you can get there now is to go from here down to Indianhead, from there on down to, I forget the name of the place, across to Dahlgren, and get a boat and go over to Dahlgren, I think it is 6 miles across the water, something like that.

The CHAIRMAN. You have stated a condition of facts there that is almost unbelievable.

Mr. STEPHENS. Yes, sir.

The CHAIRMAN. It can not be possible that the Navy Department has been so wasteful as to do all that without some probable reason or cause. Please tell us what that cause is.

Mr. STEPHENS. The only reason or cause I know, Senator, according to our information, is that in the beginning it was to be a lower station, but after getting the appropriation of \$1,000,000 they probably developed a greater idea of activity, and intended then to build a whole new proving grounds, with all of the activities that they probably had at Indianhead. That is the only thing I can see as far as the Navy is concerned.

The CHAIRMAN. Has one or the other of them got to be practically abandoned?

Mr. STEPHENS. Why, no; one or the other of them does not have to be practically abandoned. As a matter of economy, about which we are all talking, at Indianhead with over \$11,000,000, which I think has been spent there, complete, there would only be one overhead expense if it was at Indianhead. If you move the proving grounds to Indianhead you have all the activities there. While it takes 400 men at Dahlgren, civilians, at Indianhead it could be run with the facilities they have there of from 60 to 100 men. And as we are under the plan of a 10-year naval holiday, as a matter of economy, as a matter of cutting down money that has been wasted, completely wasted at Dahlgren, I think this work could be done at Indianhead.

We are talking about this from an economical standpoint, from the standpoint of not wasting money, and not duplicating the work of

mittee either of the Senate or the House, and use money for these activities. If we take this for an example we do not know how far it is going to continue. We do not know whether it would continue over \$3,250,000, or four million or five million or six million, or any amount, if the money could be obtained.

Senator FRANCE. While Mr. Stephens is looking that up, I would say that at Aberdeen they have hangars, they have ground for land aviation, they have officers' quarters, they have water for the of seaplanes, and all that. Every conceivable sort of equipment is at Aberdeen. There is possibly a duplication of the same thing at Edgewood, so far as the range is concerned.

Mr. STEPHENS. I had it here some place, but I do not believe I can find it. Anyhow, it shows that we could use Aberdeen for big guns if necessary, but I am presenting this to you because as of the bill that the House just passed it states that no part of appropriation shall be used at Dahlgren except to keep it on a c down basis. That will mean there would be enough men left to take care of the property, look after it properly. And I might with Senator France, if at some time they felt that they could use it for ranging some big guns, that might occur once or twice a year, it could be used then as we thought it was going to be used in the beginning, as an auxiliary or a lower station to Indianhead. It shows that new homes had been built at Indianhead for officers: they went right down to Dahlgren and built finer and better homes, so that it is a duplication of officers, it is a duplication of men.

You can release marines, you can release some of the sailor boys of the Navy that are now used at Dahlgren, if you return the act to Indianhead.

I forgot to state that just before this appropriation of a million dollars was made an appropriation was made for the purchase of 1,600 acres, or 2,600, or something like that, down at what Cornwallis Neck, down from Indianhead, so that they could move some of their batteries down farther on the neck, and get out of the way of where there would be any danger whatever of accident.

If this program is carried out there is a million dollars to be spent there, according to this statement, and there is five or hundred thousand dollars a year to run it.

The CHAIRMAN. And if it is not carried out we have two, four, or five million dollars squandered, have we not?

Mr. STEPHENS. No. We have spent \$2,200,000 down there.

The CHAIRMAN. Can that not be utilized in some way?

Mr. STEPHENS. It probably can. I think it would be a very whole-some thing to close it down for a while at least.

I am not criticizing, Admiral. I do not mean to criticize Admiral McVay.

Admiral McVAY. I am perfectly willing to take it for has gone on since I have been in office and when I leave.

Mr. STEPHENS. I want to say that this was all done before Admiral McVay came in as head of the Bureau of Ordnance.

Senator GLASS. Mr. Congressman, your remedy, then, against providing expensive plants is to abandon them after they have been built: is that the idea?

Mr. STEPHENS. My idea is if we have spent over \$2,000,000 on a plant and it is expected to spend another million dollars.

keep of that plant is some 400 men, to do something that you could probably do some place else with one-fourth of the expense. It would be the best thing to abandon the plant.

SENATOR GLASS. Who is to determine whether you can do it or not?

MR. STEPHENS. That is a matter of judgment. Everybody that wants to do anything to do with it must have a little knowledge and use their own brains in coming to conclusions as to what is the best thing to do.

SENATOR GLASS. Can you conceive of any reason why the Navy Department would want to run either one of these plants at an excessive cost if it might save money by running the other?

MR. STEPHENS. No; I can not conceive of any reason why the Navy would care to run two plants.

SENATOR GLASS. What I asked is, if you can give us any reason why the Navy Department would prefer to run one of these plants at an excessive cost rather than to run the other upon an economical basis.

MR. STEPHENS. The only reason that I could give is that it has started; it has been done; it has been done by the Navy Department; and those who follow on will not criticize those who have preceded them.

SENATOR GLASS. It is not a question of criticism; it is a question of future activity. It is not a question of what has been done.

MR. STEPHENS. Then, on the question of future activity, it would be better to close an activity that would cost probably a million more dollars and then cost more to operate it than it would another activity.

SENATOR GLASS. But the statement is made that the Indianhead Ring Ground is not adequate for the purposes of the Navy.

MR. STEPHENS. There is no doubt but what that statement is made, practically, that will have to be a matter of judgment by men who ask questions of this kind, who investigate them thoroughly, who take the opinions of others who are possibly engaged in this particular work.

One of these hearings I have the testimony of all of the practical men who live at Indianhead who are engaged in the proving of powder, in the proving of guns; in all of this work, for the last 20 years, who are on the job all of the time. They have given their statements here as to the capacity of Indianhead, as to the manner in which the work was done, and everything in detail.

SENATOR GLASS. We have the House hearings here.

MR. STEPHENS. Have you Hearing No. 168, do you know?

SENATOR GLASS. I assume we have that. We usually have.

We have statements here to show that the 60 men at Indianhead do what 400 men are doing over at Dahlgren. By that I mean men can attend to all of the proving of guns that are necessary.

It is necessary for a little more development, they can move down his neck that they bought. And you have your whole activity for one overhead charge. Here you have two overhead charges.

You have the men, you have the power, and all of these other things. I think it would be a good idea to give it a trial, anyhow. The place is here. It is not altogether wasted. If you close it down, have it a closed activity for a while at least; we will know more about its use as an auxiliary station.

But the fact is, as a matter of economy, as a matter of saving of wasteful expenditures, something should be done.

Senator FRANCE. In further answer to the Senator's question, you might have added what you said before, that Admiral Harle said that Aberdeen would be suitable for testing any guns that might be necessary.

Mr. STEPHENS. Yes; I made that statement.

Senator GLASS. If the admirals of the Navy, if the men charged by the Government with doing this work said that, why is the question up here? Why not leave it to them? Why should we undertake to make a decision on it?

Senator FRANCE. The point is that we are responsible for the appropriation for the department.

Senator GLASS. This is not a question of appropriation. This is a question of directing the Navy Department to pursue a particular course with reference to a training ground. It is not a question of appropriation.

Senator FRANCE. The money has to be appropriated if the activity is maintained. My point is that as we have control of the appropriation we can influence very greatly the departments so that they will cooperate one with the other. The War Department and the Navy Department can cooperate in using the same proving ground and thus eliminate the expense involved in duplications.

Senator GLASS. Suppose we let them use the same proving ground, but let the two departments decide which is the better proving ground. Why should this committee or Congress be called upon to determine which is the better proving ground?

Senator FRANCE. Because we have to pay the additional expense involved in the duplication of plants and in the maintaining of the proving grounds.

Senator GLASS. There would be no duplication of plants if they decided in favor of one or the other.

Senator FRANCE. If two plants are maintained it will cost more money than if one plant is maintained.

Senator GLASS. Then why not have them abandon Indianhead—because it is in Maryland?

Senator FRANCE. No, but because there are two plants in Maryland. I might add that we were not very anxious to have them there, also. There are two plants in Maryland, one at Indianhead and one at Aberdeen, and an additional plant at Edgewood. Upon those three plants all of this testing can be done.

STATEMENTS OF ADMIRAL EARLE.

Mr. STEPHENS. I have found this. It says:

The CHAIRMAN. Is there any reason why you could not and should not have a sufficient number of them tested at the Army proving grounds in order to test the effect of the explosions of the shells?

Admiral EARLE. We are doing that now, sir. We are getting along with what we absolutely have to have on a land range test at Aberdeen.

The CHAIRMAN. Aberdeen is a very elaborate proving ground?

Admiral EARLE. Yes, sir.

The CHAIRMAN. It is going to be a proving ground of very great capacity?

Admiral EARLE. Yes, sir.

The CHAIRMAN. Would it not be sufficient to take care of all the Navy's needs in connection with the testing of shells on land?

Admiral EARLE. I think so, sir. The project of the proving ground that I am asking the \$980,000 for is exactly the same as presented before.

That was the testimony of Admiral Earle before the Appropriations Committee when he had placed in the deficiency appropriation bill the \$980,000 for Dahlgren.

Senator GLASS. This is the admiral who was guilty of so much extravagance, is it not?

Mr. STEPHENS. I would not say it is the admiral that is guilty of so much extravagance. I will say that he was the admiral who stated to the committee that it would take one million dollars, and submitted a table of \$1,000,000.

Senator GLASS. You reject his judgment in the one case and appeal to it in the other.

Mr. STEPHENS. Wait a minute. Then he goes to this committee—I am not caring for the statement only as a matter of showing what he did—after presenting this table to the committee and getting the appropriation he goes to the Appropriations Committee that has nothing to do with the Naval Affairs Committee that appropriated the million dollars for this activity, and this is his testimony before the committee where he is asking for an additional \$980,000 for Dahlgren.

There is not a member of the Naval Affairs Committee but whose business it is to know, whose business it is to look after the affairs of the Navy—I believe that is their business, and they did not know anything about this \$980,000 because he got it from the Appropriations Committee in the deficiency bill.

Senator GLASS. But, Mr. Congressman, I can not exactly comprehend how that has anything whatsoever to do with the question that we are called upon here to decide.

Mr. STEPHENS. I will answer, Senator, that it has not in one direction so much to do, but in another direction it has everything to do with the Navy, with any activity of the Navy that is brought before a committee of the House or of the Senate for an appropriation, when they had power to make appropriations, and lay before such committee what they wanted. And here is the exhibit and the table, and then as soon as they get this appropriation to go to another Appropriations Committee and get a deficiency appropriation without presenting the facts to the Naval Affairs Committee for its consideration, a committee that has this in charge, a committee that ought to have the business of the Navy in charge, and the expenditure of the money—that is, to look after it largely and know something about it. If any branch of the Navy or any other governmental activity will use that method, it seems to me that that has a good deal to do with stopping activities until a thorough investigation, further investigation, could be had at least.

Senator GLASS. I can not exactly understand how the fact, if it be fact, that an admiral of the Navy deceived a committee of Congress may determine that one proving ground is superior to another proving ground.

Mr. STEPHENS. I will not say that the admiral deceived the committee. What he did was in the line of business to him—to get the million dollars appropriation, and then he went over and got the

rest. I will admit that has not such a great amount to do with Dahlgren at the present time.

Is Dahlgren the proper place? Is it a matter of business for the Naval Affairs Committee of the Senate and House to continue an activity that will require so much expenditure of money: a place which is out of the way, so far as transportation is concerned, that you can hardly get over there and get back. In the wintertime, with a frozen river, they would have to close?

Senator GLASS. Those are pertinent facts, if you will allow me to interject; those are pertinent considerations, but the other point I do not see that it has a thing in the world to do with it.

Mr. STEPHENS. I will admit a great deal of it is to show just exactly how Dahlgren was built up and the money that has practically been wasted when you come to figure the expenditure of that much money.

Senator GLASS. It will be wasted if you abandon the plant and let it go to the dogs.

Mr. STEPHENS. If you abandon the plant you will, as I said before, save whatever the amount is, or very nearly the amount that would take to carry on at Dahlgren; you would save all of that expenditure of transportation down by rail and then across the river from whatever town lies across from it. You take your armor plate, and it has to come down either by the river or it has to come down through Indianhead by rail and then be transported over across the river.

As a matter of economy, if this is placed in one location, one great overhead charge, it is going to save this duplication is going to save in the number of men. That is the information that has come to me, because I have paid some little attention to that. That is my judgment. I do not want to disagree with the experts of the Navy.

Senator GLASS. Suppose there should be no duplication; suppose all of these activities should be centered at Dahlgren; would there be any duplicate overhead charges or other duplicate charges?

Mr. STEPHENS. You mean if all of the proving was over there?

Senator GLASS. Yes. In other words, supposing the Navy Department should decide to abandon Indianhead instead of Dal

Mr. STEPHENS. If the Navy Department would decide to abandon Indianhead, they would abandon a great powder factory. Indianhead consists of the great powder factory first, and the proving ground next. The great factor at Indianhead is the powder factory. They have spent at Indianhead something like \$11,000,000.

Senator GLASS. Then, according to your theory we certainly would abandon Indianhead because they have spent a great deal of money at the proving plant, and it ought to be abandoned.

Mr. STEPHENS. That does not hardly seem logical, that I suggest abandoning Indianhead because they had spent a great deal of money there.

Senator GLASS. You propose to abandon Dahlgren because they have spent less than three?

Mr. STEPHENS. I propose to abandon Dahlgren in order to avoid any further wastefulness of money at Dahlgren.

Senator GLASS. Of course there should not be any money spent at any place, Indianhead or anywhere else.

Mr. STEPHENS. My investigation has shown that at Indianhead there has been a great deal of money wasted.

Senator GLASS. You mean at Dahlgren?

At Indianhead everything will be compact. It will be under one administration. It will release 17 officers of the Navy. I think the last report was they had 17 officers of the Navy at Dahlgren. It will release them and they can go to other activities. It will release a number of marines located there, a number of Navy boys they have there. It will save all of that money and put it all under one big head, or roof, you might say—and everything complete. Dahlgren is not complete. They are spending money there building new houses or completing them. They have to go through all of that business. And the best thing for an economic plan is to close up Dahlgren.

The CHAIRMAN. Are there any questions by the Senators? Have you any questions, Admiral?

Admiral McVAY. I would like to make a short statement.

The CHAIRMAN. Very well; you may proceed.

STATEMENT OF ADMIRAL C. B. McVAY, CHIEF BUREAU OF ORDNANCE, UNITED STATES NAVY.

PROVING GROUND, DAHLGREN, VA.

Admiral McVAY. The question is whether or not we should keep Dahlgren Proving Ground. Responsibility must carry with it authority. I am responsible to the Secretary of the Navy for the growth and development of ordnance material. I am responsible to the Navy. I am responsible to you gentlemen. And Dahlgren, I have no hesitancy in stating, is a necessity, and an absolute necessity. It has been a requirement for the last 20 years, and a similar one has been tried for by every chief of the bureau.

A powder factory is possibly the last place in the world for a proving ground. It seems so to me. I have to accept the responsibility in connection with the firing of guns. And yet the first thing I did when I came in the Bureau of Ordnance was to give an order that guns of large caliber should be fired at Indianhead, for fear of angering the inhabitants of Maryland or Virginia. There is no gun of 4 inches and up that can be fired at extreme range at Indianhead. The greatest range you can get on an average is 12,000 yards. A 14-inch gun ranges 20,000 yards and over. On extraordinary days it can get 14,000 yards and no more. The responsibility is mine. I would not permit the firing at long range at Indianhead. I would almost just as leave, say, fire in this room.

The money spent at Indianhead is on the powder factory, with the exception of it for the proving ground in a very small valley. We could even test fuses at Indianhead because we had only a 300-yard range of shell, and the fuses would not arm in that time, and we had to get a longer range.

Then we got bigger guns and heavier plates and fired tests, and plates of plate flew all over the vicinity and were a danger to people. We had chunks of them that fell down near houses, on the tops of the houses, all around. Fortunately serious accidents have been few. But every time they fire a gun the inspector there, the chief of the Bureau of Ordnance take the responsibility and would have been subject to serious criticism, and even worse if someone was hurt.

Outside of that limited range we have to fire for range purposes at an elevation of not over eight degrees. With the data thus obtained we have to calculate mathematically the ranges without any method of checking them, practically. Our range tables were out three, four or five thousand yards—absolutely incorrect. And only really recently, only to-day, am I conducting firings with certain guns to get absolute battle ranges. I could not get that at Indianhead. The land purchased at Cornwallis Neck was purchased for a nitric acid plant, and not with any intention of putting a battery there for further proving.

There has been a good deal said to the effect that you could test guns afloat. It requires the greatest nicety to test a gun. Your elevation has to be known to seconds; there must be no movement. It is just like conducting a laboratory test in a kitchen trying to test a gun at sea to see what that gun will do.

The question of the investigation of efficiency and expenditure of money under the Bureau of Ordnance gives me an opportunity that I am very glad to take, to say that the Bureau of Ordnance has turned in from settling contracts in the recent war \$335,000,000. This committee by reason of the management which has taken place is now considering taking \$28,000,000 more, and a still further three million, from the appropriations under the Bureau of Ordnance, to give to others. If that is bad management, it is not my idea of it.

The opinions of people down there regarding what can be done or can not be done—I am speaking now of employees at Indianhead—are of little value from my standpoint. They do not have to sit up and take the responsibility for accidents. I do. And what they say about it matters nothing.

The Secretary of the Navy has appeared before the House Naval Committee and said if there be but one proving ground, Dahlgren is the place. At the present time there are 17 officers at Dahlgren. There are but six Naval Academy graduates at both Dahlgren and Indianhead, one in charge of the powder factory at Indianhead, and five at Dahlgren. The rest are officers in the Pay Corps or medical officers. There are also officers who were made lieutenants. They were formerly gunners or boatswains, and by recent legislation have become lieutenants. That is about the only way the number of officers has been increased. I think we had seven before the War.

Two million two hundred thousand dollars, about, has been expended on Dahlgren. It has been stated here that there is a probable additional expenditure amounting to a million dollars or more. The naval appropriation bill last year carried in it a proviso that no money under any ordnance appropriation may hereafter be used to add to the facilities of any ordnance station. Under that law no more money can be spent on Dahlgren or Indianhead or any other place for additions. Not only that, but under that law, since we have moved all of the facilities from Indianhead, they can not be moved back, because it is illegal.

If the river freezes up so that you can not get to Dahlgren, you can not get to Indianhead, because all the freezing takes place this side of Indianhead, and practically none in the lower river. We have had one case, I think, in 20 years. I happen to have been commandant of the navy yard during a very hard winter two years ago, and

know what the procedure was then and what it has been for a number of years, and that is to have navy-yard tugs keep the river open that vessels may enter and leave Washington; and in doing that handle the freight, and we handled it right straight through that any winter.

I do not fear for the facilities of Dahlgren. I think it is a necessary place. I think it is an essential place. We can not do the work at Indianhead. We have got to do it some place. And if I have the responsibility for the Navy ordnance, then I must have the direction of the tests, and not to turn it over to somebody else.

I think that is about all I have to say.

Senator NEWBERRY. Do you want to say anything about the possibility of using Aberdeen or Lakehurst, or any other place?

Admiral McVAY. Lakehurst, of course, belongs to a private company, and even if we borrowed it, it would result in eventual purchase. I do not know what the cost would be, and I really do not know anything about Lakehurst.

As to Aberdeen, I think the Army has plenty of work to do at its proving ground. I know I have plenty to do at ours. I would not be willing to take over the Army work, and I do not think they would be willing to take over mine. There can be no double control in a case like this where people are responsible for the lives of many men.

Our ordnance is entirely different. We work under sea conditions where any accident endangers the ship, millions of dollars, thousands of lives. The Army can put guns ashore, and if they have an accident they may lose a few men, a casemate or so; but for ordnance to be on a ship I want the tests under me. And Dahlgren proving ground is an absolute necessity.

The CHAIRMAN. Are there any questions by the Senators?

Senator FRANCE. If I may, I would like to ask this question: It is not quite clear in my mind as to just why you think the heavy ordnance should not be tested at Aberdeen. It seems to me in order to save two or three hundred thousand dollars a year some way might be found by which the naval officers could take charge up there with the experts who are always there for the testing of the few guns which are of that large caliber. I am not up on ordnance at all, but I imagine that perhaps not over 5 per cent of all the new guns manufactured are of such long range as those we have been speaking of to-day.

Admiral McVAY. I think, Senator France, you have got the Navy ordnance confused with Army ordnance, where they have field pieces and howitzers and all sorts of short-range guns like that. Our 5-inch guns range at 22,000 yards. We have no guns really except machine guns, or something like that, that have short ranges. We have a great deal of work that would not be done there; but even so, as I say, they have plenty to do. Their proving ground is busy, our proving ground is busy, and as long as I have the responsibility I want the Navy proving ground directly under me.

Senator FRANCE. Of course we had a very good Navy and a fairly efficient Army before this war, and I was under the impression that a proving ground like Aberdeen, with its long range over land and over water, might be so administered that it would be adequate for the work of both the Army and Navy during peace times, particularly

as we did not have any proving ground of such long range in the days before the war.

Admiral McVAY. Yes; and we suffered for not having one such.

Senator FRANCE. Yes; no doubt we did.

Admiral McVAY. But in addition to that, this question has been investigated and investigated; in fact, it has taken more of my time than any other one thing since I have been in the bureau, and finally the Bureau of the Budget investigation. Their report was that Dahlgren was necessary, and it was in the interest of efficiency and economy. Personally I know that. I think it is costing us something like four or five hundred thousand dollars less to do all of the work at Dahlgren instead of half at Indianhead and half at Dahlgren. Certainly you would not call that uneconomical.

Senator FRANCE. Personally, I think you did suffer for the lack of a long range. But it did seem to me that when we are so interested in reducing expenses, particularly in reducing naval expenditures, in such a way that there would be less prejudice against the Navy, that it might be highly desirable, if possible, to concentrate all of this work at one place. In fact, we have too many plants under the Navy and under the Army, it seems to me, and a consolidation, a concentration, of work would be highly desirable.

Admiral McVAY. The Navy has no unnecessary plants at the present time. I am not familiar with the War Department.

Senator FRANCE. Of course, we here provide funds for both departments.

Admiral McVAY. Yes.

Senator FRANCE. And there is only one Treasury, although there are many departments and bureaus. Of course, if it is possible to avoid duplication it is in the interest of economy, and I think this is a case where it might be done.

Admiral McVAY. We can not duplicate anything at Indianhead because I can spend no more money in facilities at any station. The Treasury is perfectly safe in that regard because the law is to that effect.

I would be very glad if our Army friends want to test any guns at Indianhead to do as much as we can for them. We work very well together. We are very much interested in each other. There is scarcely any duplication of work. In fact, the two departments having different proving grounds, give us very valuable comparative tests which are necessary, and we do a great amount of work together. I have, for instance, an officer that attends all the meetings of the Army ordnance technical committee. We have a combined special technical committee that meets twice a month. The Army and naval officers meet in the Bureau of Ordnance of the Navy on one Tuesday a month, and on another Tuesday a month they meet in Army ordnance. We have the greatest cooperation. We are always phoning to each other. We are always checking up data—and I think it is a splendid thing.

The CHAIRMAN. If there is nothing more at this time, the committee will stand adjourned until to-morrow morning at 11 o'clock, at which hour we have an engagement with the Secretary of the Navy.

(Thereupon the subcommittee adjourned to meet to-morrow, Thursday, June 1, 1922, at 11 o'clock a. m.)

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

THURSDAY, JUNE 1, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

nt: Senators Page (chairman), Hale, Poindexter, Newberry,
188.

subcommittee was called to order by Senator Page at 11.15 a. m.

for PAGE. You may proceed now, Mr. Secretary.

tant Secretary ROOSEVELT. Mr. Chairman, with your permission I would like to suggest that Captain Parker, of the Naval Reserve, appear now before you to open up the case for the Naval

THE COURT: For PAGE. Without objection, we will hear Captain Parker.

NAVAL RESERVE FORCE.

MENT OF CAPT. JAMES P. PARKER, NAVAL RESERVE FORCE,
ON, PRESIDENT OF THE UNITED STATES NAVAL RESERVE
ERS ASSOCIATION.

in PARKER. Mr. Chairman, I am here to speak for the Naval Force, and I would like to start by saying a word in regard Naval Reserve Force.

ever is the peace complement for the Navy, it must be expanded and augmented in time of war. No nation can afford to maintain in time of peace a navy large enough for war purposes. The additional personnel must come from somewhere and must come from the Reserve. That is the function of the Naval Reserve.

ave a powerful war navy the personnel must be ready and it efficient. Efficiency is a combination of knowledge and dis-

Knowledge is gained by work, but discipline comes from it, something that has got to be learned by constantly living under certain conditions. Correct habits of a military character can be acquired in a day. They must be practiced constantly until the mind and the body learn to react under service conditions. The result here is more to a sailor than the uniform he wears. He must follow a military way of thinking and acting, so that his brain and body react properly under service conditions. Civil life does not teach these things. We must treat a civilian until he has reached a degree of usefulness. The Navy must be able to count on the citizen when the time comes for his effectiveness. The last war showed that we had a large number of patriotic men who recognized the obligation of the citizen to be ready to volunteer, but few of

them possessed either knowledge or discipline. Much time and effort were needed to transform them into a military asset at a time when all efforts were needed for war purposes.

It is our work to so prepare a certain number of these civilians that they will be able to join the Navy in forming the crews of the ships which will be the first line of defense.

It is possible for the Navy to secure and train a large number of men after the war starts, but it takes some time to train them, and our efforts are to build up a reserve which with the Navy will be the first line of defense and behind which these other men can be secured and trained.

To acquire even this amount of knowledge and discipline means work, sacrifice, loss of pleasure, and often loss of revenue. Willingness to make this sacrifice is a test of patriotism.

The obligation to serve in time of war is one of the obligations of citizenship. The obligation to train for service ought to be one of the obligations of citizenship; but until it is so recognized—and while we only ask a certain few of our citizens to undergo this training—we must not make the sacrifice too great or the burden too heavy. The sacrifice can be somewhat compensated by drill pay; the burden can be lessened by convenient and comfortable places for drill; and the esprit de corps and interest can be increased by attractive cruises. With all these features properly balanced we can make the service sufficiently attractive to hold our men without too great a strain on their patriotic influences—and hold them we must.

In these days, when economy is causing reductions in the Navy, the necessity for maintaining a large and efficient reserve is all the more important. We must have our men ready and efficient when they are needed if we wish to avoid wasting our expensive matériel for lack of personnel.

During the last war there were 350,000 reservists used by the Navy. Most of those men had to go through a three months' course of training. During the first three months none of them were available.

The Naval Reserves should be large enough, with the Navy, to take care of that first three months.

I imagine that every officer from whom you asked an opinion would state a different number as to the number of reservists that would be needed with the Navy to fill that first three months' gap; but whatever the estimates were, I feel it is a safe statement that they would be larger than any reserve that we now have or any reserve that we may expect to have in the future, taking into consideration the cost of maintenance. So that the cost of the reserve which we have left at the present time as the result of last year's disenrollment is a mere drop in the bucket, but it represents largely the cream of the reserve that was built up during the war.

When this disenrollment order came the Secretary asked those that were really interested in the Navy to transfer to class 6, with the hope of being transferred back again when funds were available for their training. About 6,000 officers and 10,000 men out of 200,000 officers and men transferred to class 6. They represent those who are really interested, those who want to help build up a reserve for the Navy that will make it effective in time of war.

Our plea is to get the necessary money to keep up the training and keep up the interest of this trained nucleus—men who are heart and

ul behind their work, who have had the training, the war experience, and whose efforts in training the new men coming in are so lly needed. If those men are allowed to be dissipated, and then u start to build up a new reserve next year or the year after, you ive no material with which to train them, no leaven to help out building up this new force that is so badly needed.

In order to hold this nucleus to start building up this reserve we ed three things under the existing law. We need cruises in order at they maintain efficiency; we need meeting places or armories here they can meet together for drills and instruction, and in order put them on a parity with the land volunteer forces we need drill y for those drills.

Those three items represent the general headings of the appropriations necessary in order to make this work effective.

In connection with the cruises it is necessary for us to have vessels i which those cruises can be made, and I want to urge on you the cessity as well as the advisability of the use of the Eagle boats for ch training cruises.

The vessels of the Navy are so much in use for the purposes of the avy that although they can take some reservists on for training ey can not give all the facilities that are needed for the training civilian reserves. It is necessary to have certain particular vesls assigned for that purpose in each district, so they can go out on eek-end trips and two-week cruises and keep moving from early ring to late fall. But even then we find it difficult to give opportunity to all men to cruise who are required to cruise in order to aintain their efficiency. The Eagle boats are well adapted to this ork. They are somewhat economical for maintenance, they are ult on lines which make them proper boats for training purposes, id we have found them to be a perfectly adequate and available eans for giving training, and I want to urge upon you the necessity of providing these Eagle boats for that purpose.

Now, as to the subheadings of our appropriations, the Secretary the Navy can give you the specific headings. I have asked him to epare the figures which would make it possible for you to see just actly what it would cost, and when I have finished in a moment, wish you would ask him to produce those figures so you can see actly what it would cost, and when I have finished in a moment orce.

Congress is amply providing for the reserve for the land forces in e National Guard. It has always in the past amply provided for e naval forces, but for some unexplainable reason at the present ne there is no provision in this bill for the Naval Reserve, no opportunity for training the civilians who form a part of that reserve for training additional civilians who want to come in as part of at reserve.

We very earnestly ask you to make provision for this little reserve 3,000 or 4,000 officers and 10,000 men. We are estimating 3,000 icers and 10,000 men as the number who could take training. As matter of fact, there are about 6,000 officers and 13,000 men in the ervice at the present time, but probably all of them could not take uining at this short notice, and I bespeak your interest and your pport for that branch of the service.

Senator NEWBERRY. Captain Parker, you are referring entirely to the members of the Reserve Force outside of class 1?

Captain PARKER. I am asking your assistance for those who are enrolled members of the Reserve Force as distinct from the transferred members of the Reserve Force who come in under 1 (a) and 20 years in 1 (c) and 1 (d). I include in my remark 1 (a) and 1 (b) officers and men who, having severed their connection with the Navy, have enrolled in the Reserve Forces and are in the status as anyone else.

Senator NEWBERRY. What do you mean by "in the same status as anyone else"? If they are in class 1 are they not receiving retainer pay?

Captain PARKER. They would receive retainer pay, commencing upon attending drills, but at the present time their drills are suspended. This by reason of the fact that they are in class 1 by action of the department in leaving them there and not transferring them out.

When I say they are in the same class as anyone else, I mean are people who have voluntarily submitted themselves to the Naval Reserve in order to be available in time of war, and I place them in a different category from class 1 (c) and 1 (d) men who are in Fleet Reserve.

Senator NEWBERRY. When you speak of 6,000 officers and 10,000 men, are those officers and men in classes other than class 1?

Captain PARKER. The figures, as I understand them, are 4,180 officers and 5,037 men in class 1, including 1 (c) and 1 (d) men. There are five thousand and odd officers and eight thousand and odd men in class 6.

Of those men in class 1, about half of them are in (c) and (b), and about half of them in (a) and (b), so there are, roughly speaking, about 6,000 officers and over 10,000 men in the Naval Reserve outside of the transferred men.

Senator NEWBERRY. Are there no officers left in class 3?

Captain PARKER. Two hundred and fifty-nine officers, according to my figures, in 2, 3, 4, and 5.

Senator HALE. What is your idea about the pay of the reserves?

Captain PARKER. I do not understand what you mean.

Senator HALE. What is your idea about the pay that the reserves should get?

Captain PARKER. I think for active service they should receive the same pay as any other officer on active service; the same per diem.

Senator HALE. For the number of days they serve?

Captain PARKER. For the number of days they serve?

Senator HALE. And nothing else?

Captain PARKER. For drill pay they ought to receive a pay for duty performed. The present existing law calls it retainer pay. In the National Guard act it is called drill pay. In either event it works out that they are receiving pay for duty performed.

As an additional requirement on behalf of the Navy, for instance, in the Naval Reserve Force a man has not only got to have served and to have qualified and to have been confirmed in order to draw retainer pay, but in addition, in order to get it he must continue to serve and put in the necessary drills and duty required by the de-

ment. So although in one sense it is somewhat based on past service, it requires present service in order to draw it; whereas in

National Guard it does not require any past service. A man can be in the service and get so much pay for the time he serves.

Senator NEWBERRY. Explain the retainer pay so they will know what it is.

Captain PARKER. The retainer pay is two months' base pay for each officer and man, as distinguished from the National Guard, which is a day's pay per drill not exceeding 60 drills, which makes the same two months, although the pay of the National Guard is paid for drill not exceeding 60 days, and the retainer pay is on the annual basis of two months' pay per year provided you have performed these drills and exercises.

Senator NEWBERRY. Not less than nine drills a quarter, is it not?

Captain PARKER. Thirty-six drills a year is the minimum required in order to qualify for the retainer pay.

Senator HALE. Then you think they ought to get this retainer pay and so much for each drill besides?

Captain PARKER. No; it is the same thing, Senator. At the present time we call it retainer pay because it is so called in the act.

Senator HALE. I understand that.

Captain PARKER. I like to consider it as drill pay because you draw it because you have performed the drills. I would be satisfied and pleased if the law were changed. It may ultimately be changed to make the payment of it along the same general lines as the National Guard—so much per drill; but the net result is the same now whatever you call it. We are operating under the old law. There is no new law passed, and we have got to operate for the coming year under the existing law; and the estimates that will be submitted to you to-day are on the basis of operating under the old law, which is all the law we have.

Senator HALE. And so much extra for cruises?

Captain PARKER. The moneys that we are asking for are, first, the money for transportation, subsistence, fuel and upkeep of vessels, to make it possible for every man to cruise 15 days.

Senator HALE. Well, but would they get any extra pay for the cruises?

Captain PARKER. They get that pay for the cruises; yes, sir. Then, in addition to that, an appropriation to provide armories and places of meeting in which they can drill—that is, for rental and maintenance.

Thirdly, an appropriation for drill pay or retainer pay, which is what you call it, which is the pay for attending the drills. That is the same provision you have in the National Guard law where they draw their drill pay for drills as distinct from pay which they receive when they make a camp or tour of instruction.

Senator HALE. And when they make a camp or tour of instruction, how long a cruise do they generally make?

Captain PARKER. They always make it two weeks; two weeks is required. Under the naval law it is 15 days.

Senator HALE. So they get substantially two months and a half pay, including the retainer pay?

Captain PARKER. Substantially two and one-half months' pay for performing all the duties required of them.

Senator PAGE. Now, stated concretely, what is the dollars and cents, exactly, of this thing per annum?

Captain PARKER. I would like to have you ask the Secretary for that, because I have not the ability to make the figures; and although I have in my mind the approximate figures, I would rather have them come from someone who can make them with authority, so, if you are through with me, I would like to have the Secretary give you those figures.

Assistant Secretary ROOSEVELT. Mr. Chairman.

Senator PAGE. Mr. Secretary.

Assistant Secretary ROOSEVELT. In my opening remarks I would like to reiterate certain of the statements made by Captain Parker.

Seven years ago there was started in this country what we call the practical training camps, composed of men who wanted to fit themselves to serve as potential officers in the Army in case they were needed. At that time those men had to pay their own money for the privilege of fitting themselves to be officers in time of need. It was a pretty deplorable condition.

If we do not now make the proper provision for the Naval Reserve, the civilian naval reserve of which Captain Parker has spoken, we will be confronted with much the same problem in the Navy.

I hardly need go over the fact that not only is it a necessity in this country to have trained civilians able and ready to take up the defense of the country in time of war, but it is the proud boast of this country that she can depend on her civilians. The Navy Department is in favor, strongly in favor, of the general proposition as outlined by Captain Parker.

There are two ways that it can be handled. One is by lumping one amendment all, or practically all, of the moneys necessary for training the civilian reserve, the volunteer reserve. The other is by inserting a separate amendment under each subhead of the bill to care for the situation.

I myself incline toward grouping in one paragraph, for then Congress can judge of the matter clearly and concisely at a glance.

The paragraph that we would suggest as covering this matter is this:

On page 16, line 15, after the word "wharfage," strike out figures "\$50,000" and the word "Provided" following, a comma following the word "wharfage" to a semicolon, and insert:

Pay and allowances of officers and enrolled men of the Naval Reserve while on active duty for training; allowance for officers while traveling on orders to and from active duty for training; transportation of enrolled men and from active duty for training, and subsistence and transfers en route; cash in lieu thereof; subsistence of enrolled men during the period of training; fuel and transportation and all expenses in connection with maintenance, operation, repair, and upkeep of vessels assigned for training; Reserve Force; for pay and allowances of officers, and pay, allowances, and subsistence of enrolled men of the Naval Reserve Force when ordered to duty in connection with the instruction, training, and drill of the Naval Reserve Force; \$3,457,561.80; *Provided*, That members of the Volunteer Naval Reserve Force, in the discretion of the Secretary of the Navy, be issued such articles of clothing as may be required for their drills and training, the value thereof to be against the clothing and small-stores fund; *Provided further*—

and finish that paragraph as it stands in the bill.

Now, that covers the first two items, the first two big heads of which Captain Parker spoke.

The retainer pay of which he spoke would not be covered in that paragraph, but would be covered by an amendment to "Pay of the Navy," on page 32, line 23. At present that reads \$5,689,233. We figure that to cover the retainer pay of which Captain Parker spoke \$2,523,269.60 should be added there.

Before passing that item I would like again to emphasize the statement made by Captain Parker, which is that this corresponds simply to the provision carried for drill pay of the National Guard in the Army bill.

Now, to get back again to the amendment that I have just read you, the omnibus amendment, the figures are \$3,457,561.80. They are made up as follows:

To begin with, we take first as our point of departure 3,000 officers and 10,000 men, those being the numbers which Captain Parker and the various representatives of the Reserve Force and the Navy Department figure will probably be available for training this year. Everything in here, then, is based on those figures.

Senator POINDEXTER. What is the total amount of all the items which you propose on account of the Naval Reserve, both for training and active duty and retainer pay?

Assistant Secretary ROOSEVELT. Let me separate that. Some of the items that we propose here to collect in this paragraph are partially covered in other parts of the bill at this time. We have, therefore, abstracted, or will subtract, in getting them into this particular form, these items from other items for which appropriations have been made. The figure I am going to give you now is the net increase for the items that Captain Parker has spoken about, over and above the figures previously furnished you under the several items. It is \$5,221,729.40.

Parenthetically I would like to say that that may be a small amount off, because we have not been able yet to figure accurately certain money due officers readjusting them to the pay bill which is up for passage now, but that is approximately correct.

Senator HALE. But that is over the bill as it comes from the House?

Assistant Secretary ROOSEVELT. Yes; this is close to it.

Senator HALE. But it includes the \$2,000,000 on page 32?

Assistant Secretary ROOSEVELT. \$5,221,729.40 above the figures submitted by the department to you.

Senator PAGE. That is the amount that we have got to increase the House bill?

Assistant Secretary ROOSEVELT. That is the net increase above the department's figures amending the House bill.

Senator PAGE. And that is justified purely on the ground of reserve expenses?

Assistant Secretary ROOSEVELT. That is civilian reserve expenses pure and simple.

Senator HALE. So that will make in all for the Naval Reserve substantially \$10,000,000 appropriated?

Assistant Secretary ROOSEVELT. Yes; but I am separating the proposition, and I am talking now of the voluntary or civilian naval reserve in contradistinction to the Fleet Reserve.

The items which compose the \$3,457,561.80 in the first amendment are as follows:

"Pay, miscellaneous, \$67,680." That is traveling expenses.

"Care and administration of armories, \$500,000." That is put as follows:

Roughly, we will have 200 units. Each unit for armory expense we figure needs \$2,500. Of that \$2,500 \$1,500 is rent and \$1,000 is maintenance.

That figures down to an allowance of \$50 per man. We have urged that as close as we possibly can. As an illustration of how we are figuring that in Massachusetts, New York, and in Ohio, they had appropriated for the Naval Militia, they figured per man to do the same work that we are figuring \$50 per

The next item is—

Senator HALE (interposing). The House estimates on that \$50,000.

Assistant Secretary ROOSEVELT. Well, if you will recall, in my statement here I said if you appropriated \$50,000 you might just as well not appropriate anything.

Senator HALE. Under the estimate it was only \$200,000.

Assistant Secretary ROOSEVELT. Yes. I have gone on these gentlemen, and they convince me our estimate was low.

Senator POINDEXTER. Why do you say that, Colonel? Can not maintain some units on \$50,000?

Assistant Secretary ROOSEVELT. No; you have to spread; so thin it would not amount to anything.

Senator POINDEXTER. But by concentrating on some and out the others? I only ask that as a possibility.

Assistant Secretary ROOSEVELT. Yes; but it would do so you could to all intents and purposes say it would not

Senator POINDEXTER. Suppose you wanted to have a unit in an armory, etc., at Boston and one at New York, just 1 and leave out the others. Could you not do that with

Assistant Secretary ROOSEVELT. Yes; you could do it. I say, it would amount to practically nothing.

Senator HALE. You could take care of 20 armories on your figures.

Assistant Secretary ROOSEVELT. You could take care of 20 and 300 officers and 1,000 men.

Senator HALE. Twenty armories and only 300 officers and men?

Assistant Secretary ROOSEVELT. Yes; on the basis we are here.

Senator POINDEXTER. Do you not think that would advantage to train 1,000 men?

Assistant Secretary ROOSEVELT. That would of but the number is so small that I would do feeling on it.

Now, the next item, "Engineering, \$358,820." Taken care of on page 25 by the figure of \$16, taken care of by Admiral Robison.

Senator HALE. Give me those figures again.

Assistant Secretary ROOSEVELT. \$358,820. He transaction, Senator, because it was included in so that would not increase our estimate either.

Construction and repair, the next item—that \$156,000.

That is an increase of \$130,000. Twenty-six thousand dollars is ried in our estimate of \$18,441,000 submitted to you.

Then the next item, and the big item, "Pay of the Navy."

Senator PAGE. Where do you find that?

Assistant Secretary ROOSEVELT. Page 32; but I am just giving you ere the things are now. This is not contained in there at all—5,926, which represents the pay of the men for the 15 days' train-; cruise this summer, plus the 2 additional days' pay that is allowed m for travel to and fro.

The next item, \$608,572.80, is for 600 shipkeepers for the Naval serve vessels.

These shipkeepers have to be ordered to duty and kept on duty the r around, so it represents their pay for the entire year.

Senator NEWBERRY. When you speak of the shipkeepers, are you king about civilians?

Assistant Secretary ROOSEVELT. I am talking about Naval Reserves lered to active duty and kept on duty.

Senator NEWBERRY. In addition to the enlisted force of the Navy?

Assistant Secretary ROOSEVELT. Yes.

Senator NEWBERRY. The work is now being done by the enlisted ce of the Navy, is it not?

Assistant Secretary ROOSEVELT. The work is now being done by the isted force of the Navy; yes.

Senator NEWBERRY. This would mean so many extra men. How ny did you count?

Assistant Secretary ROOSEVELT. Six hundred.

Senator NEWBERRY. Six hundred additional men in the Navy?

Assistant Secretary ROOSEVELT. Yes.

Senator HALE. How many ships would that be?

Assistant Secretary ROOSEVELT. That I can not give you the figures offhand, but 27 Eagle boats, 16 subchasers. Here are the figures. an give you the ships. Sixteen miscellaneous craft. That is 57.

The ships other than the Eagles and subchasers are the *Wolverine*, *eyenne*, *Gopher*, *Hawk*, *Willamette*, *Yantic*, etc.; pretty old boats, re of them. I think, Senator, a good many of them were in the vy when you were there.

Senator NEWBERRY. Before I was born. One of them is the oldest n war vessel in the world, built in 1844.

Assistant Secretary ROOSEVELT. The next is provisions for the vy. We have taken simply the 15-day training provisions for these n, figured on a 50-cent ration, \$75,000.

The next item is provisions for the 600 men on active duty, of ich I have spoken already.

Senator HALE. Six hundred shipkeepers?

Assistant Secretary ROOSEVELT. Yes.

Senator HALE. How much was that?

Assistant Secretary ROOSEVELT. \$219,000.

The next item is "Maintenance, Supplies and Accounts," \$27,560, l is composed of equipment for the galleys of these various vessels, ss gear, etc., that would be used in the training.

Senator NEWBERRY. What do you mean by that? Renewing the ipment that is already there?

Assistant Secretary ROOSEVELT. Yes; renewal of equipment, and re- cing wear and tear on pots and pans and things of that sort.

The last item is "Fuel and transportation, \$625,150."

Of that item approximately \$169,662 is already carried in the estimate submitted to you of \$19,894,662, and the additional amount is the fuel that would be necessary for operating the Eagle boat submarine chasers of which Captain Parker spoke, plus one or two other ships that would be added in the miscellaneous class of 16.

Now, that in brief is a statement of how the case stands at present. In finishing my task I want to again reiterate the Navy Department's stand, which is that they are strongly in favor of the Naval Reserve. They believe it to be an essential part of our service and to be in thorough keeping with the ideals of this country. They feel that it is not a square proposition either to the country or to the man to let war break and then have to throw the man raw into the war. If he is going to have a show for his white alley he ought to have the opportunity to train beforehand.

Mr. Chairman, if there are any questions which you would like to ask, either I will answer them or ask someone to do it if it is a detail question.

Senator NEWBERRY. Mr. Secretary, to arrive at this same conclusion from another point of view, I refer to a communication which the department furnished to the committee which provides for the training of 10,000 men and 3,000 officers for 15 days, I believe, subsistence and transportation, and the total amount appears in item that I have here to be \$832,000.

If we add to that the amount of retainer pay which would be necessary to take care of these men and give in Army drill pay as provided for the National Guard by the War Department, the sum total of those two items would amount to \$2,832,000 as against your \$5,300,000 and some odd dollars, and if you can analyze it a little further and show where the other \$3,000,000 goes to it would clear up the whole thing in my mind. The figures furnished by the department would amount to \$2,832,000. Now, you have added \$3,000,000 to it somehow.

Assistant Secretary ROOSEVELT. I can figure a good deal of that discrepancy right here. To begin with, we are carrying in here on this item, "Care and administration of the armories," \$450,000 more which was not submitted in there at all.

Senator NEWBERRY. Let us add them up. There is \$450,000. You are shy \$3,000,000 here somewhere or another.

Assistant Secretary ROOSEVELT. \$608,572 for the shipkeepers; \$130,000 for Construction and Repair, \$103,853 for the officers on active duty for care of the reserve, \$219,000 for rations for men on active duty, \$22,940 maintenance, supplies, and accounts.

Senator NEWBERRY. Let me ask about that rations?

Assistant Secretary ROOSEVELT. That is rations for the 600 men retained on active duty during the year.

Then \$455,488 increase under "Fuel and transportation."

I have not the letter to which you are referring, or the estimate before me.

Senator NEWBERRY. This is the first estimate you made, not the second one. The second one you rounded up an even million dollars.

Assistant Secretary ROOSEVELT. I haven't that before me, but I think I can tell you certain things in addition here. I believe this

was made without considering Eagle boats or submarine. There was nothing but pay and transportation in that, e.

or NEWBERRY. Subsistence.

ant Secretary ROOSEVELT. Yes; there was some subsistence.

or NEWBERRY. This provided for the training of the Naval, giving them 15 days' training.

ander ROWCLIFF. That provided only for 15 days' training of men and nothing else. It did not take into consideration the at would have to be kept in commission or any of the expenses ition.

or NEWBERRY. How do you expect to train them without

ander ROWCLIFF. That is something I can not answer, Sena-ause I do not know the history of that estimate; nor did I it.

or NEWBERRY. Who did prepare it?

ander ROWCLIFF. It was prepared in the Bureau of Navi-and is on a very different basis. It is purely a personnel esti-certain items. It is not all of the story by any means; it is ete, and that is the reason it has been necessary for us to ll the figures.

ant Secretary ROOSEVELT. Can we not deal with the estimate s put here to-day and dis uss the necessity for the various erein? It would be much simpler for me if we do that instead ring back to the other estimate.

e covered, I believe, approximately what is additional.

or GLASS. No, you are two millions off.

ander ROWCLIFF. The bill at the present time does not pro- keeping in commission these Eagle boats and submarine nor for most of the other miscellaneous expenses in connec- h training Naval Reserves.

or POINDEXTER. Do these new figures provide for keeping . commission throughout the year?

ant Secretary ROOSEVELT. Yes, for training reservists and ew figures provide for keeping them in commission and pro- what we will need for training.

or POINDEXTER. Why is it necessary to keep the Eagle boats er auxiliaries in commission throughout the year in order to n for 15 days in training the Naval Reserve?

ant Secretary ROOSEVELT. You see you do not use them for days. The same boat is used over and over again.

or POINDEXTER. For other purposes?

ant Secretary ROOSEVELT. No, for training more units of the Reserve.

or HALE. Still, they would only be used during the summer , would they not?

ant Secretary ROOSEVELT. They would be used during the , autumn, and spring, and they are used for drills also in the

ain PARKER. In some places. I would like to state of the strict Eagle boat, we put her in commission in the winter had taken out perhaps 300 men by the 1st of June, all through

the winter months. She worked constantly all summer and again in the fall. The number of men who go out in the winter, spring, and fall are not as many as those who go out in the summer, but we have a very large membership of artisans, painters, carpenters, plumbers—men working at their trade in the summertime, when building operations are at the greatest activity, and who want to make their cruise in the late fall or early spring—so the *Eagle* boat is used all the year around and is used constantly for making training cruises.

DISTRIBUTION OF BOATS GEOGRAPHICALLY.

Senator POINDEXTER. How would these boats be distributed geographically? Where would they be used throughout the year?

Assistant Secretary ROOSEVELT. Do you want me to read it or just put it in the record?

Senator POINDEXTER. In the briefest form. We want the result.

Commander ROWCLIFF. There are 25 *Eagle* boats on this list. *Eagle* boat No. 9, fifth naval district; *Eagle* No. 12—

Senator POINDEXTER. I do not want you to give the specification of each boat. How many boats, for instance, will be kept in commission at New York, how many at Boston? There is quite a fleet you have figured out here. Where will they be stationed?

Commander ROWCLIFF. The list is here and will be placed in the record.

Assistant Secretary ROOSEVELT. We can furnish that by districts right away. We can get it from the office. I can not give it off-hand.

Senator HALE. Are not some of these boats you speak of provided for in the list of vessels you are going to keep as ships attached to shore activities?

Assistant Secretary ROOSEVELT. None of the *Eagle* boats or submarine chasers are. The 25 *Eagle* boats and the 16 submarine chasers will go out of commission on the 1st of July, as the appropriation stands now.

Senator HALE. On this chart that was given us it provides for 27 *Eagles* in commission of the ships attached to shore activities.

Assistant Secretary ROOSEVELT. I have not the chart before me, but these are not included in the department's operating force plan.

Senator HALE. What would you do with those other 27 *Eagle* boats?

Assistant Secretary ROOSEVELT. The very few to remain in commission are for the Regular Navy.

Senator HALE. You could not use those for the Naval Reserve?

Assistant Secretary ROOSEVELT. No. Here is a list of just where the *Eagles* are. On March 1 of this year, at Boston, the first district, there were three *Eagles*.

Then they have the *Illinois* at New York City, three *Eagles* and one subchaser; one *Eagle* at Perth Amboy; one *Eagle* at New Rochelle; one *Eagle* at New Haven; three *Eagles* at Brooklyn; subchaser at New Haven; one subchaser at Watertown; one sub at Buffalo; one subchaser at Ossining.

In the ninth district we have the *Commodore* at Chicago, the *Essex* at Duluth, the *Gopher* at Toledo, the *Hawk* at Milwaukee, the *Wabamette* at Chicago, and the *Vantic* at Detroit.

Senator HALE. Those are not Eagles; those are training ships?

Assistant Secretary ROOSEVELT. Those are training ships; that is why I am giving the names. Two subchasers at Chicago; one subchaser at Cleveland; two subchasers on the Mississippi and Ohio rivers; one subchaser at St. Louis.

In the eleventh district, two Eagles at San Pedro; one Eagle at San Diego.

In the twelfth district, two Eagles at San Francisco.

In the thirteenth district, one Eagle at Portland, and one Eagle at Seattle.

In the fourth district, the *Wolverine* at Erie, Pa.

In the fifth district, the *Cheyenne* at Baltimore and one Eagle at Richmond.

In the seventh district, one Eagle at Jacksonville, a subchaser at Petersburg, and a subchaser at Tampa.

In the eighth district, the *Wheeling* at Galveston, one Eagle and one subchaser at New Orleans.

And at Washington one Eagle and one subchaser.

Now, that is what it was as of the 1st of March.

Senator NEWBERRY. None of those Eagles are included in the program for the ships to be in commission next year. How many Eagles are there altogether there?

Assistant Secretary ROOSEVELT. I could not tell you. This is as of March 1. That is the last. I am informed there are 54 altogether in the Navy.

Senator NEWBERRY. I mean for the training of the Naval Reserve?

Assistant Secretary ROOSEVELT. Twenty-five.

Senator NEWBERRY. I assume that the officers of the Naval Reserve in their civilian capacity, who have been conferring with the Department on this plan, are satisfied that this is the best thing that can be suggested for the training of the Naval Reserve Force; is that correct?

Captain PARKER. Yes, sir. I would like to emphasize that, in our program, this discrepancy of \$2,000,000, that you speak of, between the estimate before and the retainer pay and the estimate to-day is the most essential part of this program. Or, in other words, the first estimate merely provided for the actual pay, transportation, and subsistence of the men making the cruises, but made no provision for them to have made those cruises. They would have had to make them on vessels of the fleet as available, and they are not always available. In order to get these men to make their cruises they have got to somewhat conform to their civilian necessities. You cannot take a man away at the height of his season; you have got to make it possible for him to get his vacation from his employer and his employer will give him his vacation. This extra \$2,000,000 makes it possible for us to give these men their cruises scattered over the year—when it is possible for them to take them—and that is what makes the increase in the appropriation.

Senator NEWBERRY. All right. What I want to call attention to is this: If the committee should approve of this item the only way they can defend this appropriation on the floor of the Senate is to compare the service of the Naval Reserve Force with that of the National Guard.

Captain PARKER. Yes, sir.

Senator NEWBERRY. And when we get to that point we are confronted with the figures which show, if mine are correct, that the 170,000 National Guard have an appropriation of this year to cost of \$23,000,000, which amounts to about \$135.30 per man of the National Guard for two weeks' camp, and for their 60 drills, and if we eliminate the retired force of the Navy who are in the Naval Reserve Force and simply take the figures here and train 13,000 officers and men at a cost of \$5,300,000 we find that the Naval Reserve Force costs \$407 a man to train; and if we include the rest of the money appropriated for the Naval Reserve Force we find it costs \$800 a man to train, as compared with \$135.30 to train a man for a year in the National Guard.

I simply present that to you to show the difficulty I would have if I had to defend this appropriation on the floor of the Senate. I could not answer that. So if that is what it is going to cost for the Naval Reserve Force we have got to have a whole lot of enthusiasm to try to get it through the committee and to have the views of the committee impressed on Congress. The discrepancy is too great. It does not to my mind give a fair picture of what it ought to cost to train a man for the Naval Reserve, but here are the figures presented by the department and confirmed by the officers of the Naval Reserve, that that is what it is going to cost us to do it, and I say it is indefensible from my point of view, and you know I have been identified with the Naval Reserve Force for 30 years—28 years, to be exact—and I do not see how it is possible to go before Congress and ask them to appropriate three or four times as much if we eliminate the retired force, and seven times as much if we include all the money appropriated for the Naval Reserve Force. I do not think we can do it.

Captain PARKER. Senator, it is merely a question of how you use figures. The appropriation for the pay, transportation, and subsistence of the Naval Reserve Force is no greater than the appropriation for the pay, transportation, and subsistence of the National Guard. The appropriation for drill pay for the Naval Reserve Force is no greater than the appropriation for drill pay for the National Guard. There is an increase of \$500,000 that we are asking for armories because that is an expense which you force on the States in the case of the National Guard. There is an absolute increase of \$500,000 for armories which the States bear in connection with the National Guard.

Senator POINDEXTER. How do you propose to use that \$500,000 for armories for the Naval Reserve Force training? In what manner are you going to procure armories for them for that money?

Senator NEWBERRY. Let us have the details for that \$500,000 and see where it goes.

Captain PARKER. The estimate on which that was based was \$1,500 for rental and \$1,000 for maintenance of an armory for a division.

Senator POINDEXTER. Where do you get the armory?

Captain PARKER. You hire two or three rooms about the size of this in a mercantile building and call it an armory. In the city of Lynn we hired a hall that had been given up by the Knights of Pythias. It was about two or three times as big as this room, and a hallway off it, and that was an armory.

Senator NEWBERRY. I said if you included the \$5,000,000 appropriated for the fleet reserve it would amount to about \$800 per man.

Senator HALE. Of course, that item ought not to be in the Naval Reserve.

Senator NEWBERRY. No; I do not think it should be in a bill under same title, Naval Reserve.

Assistant Secretary ROOSEVELT. Captain Parker wants to add, Mr. airman, some supplementary remarks to the statement he was making concerning the comparison.

Senator HALE. Before you do that, you said the subsistence for the Navy would not be any larger per man than for the Army. I assume they would have naval rations, which are larger than the Army rations.

Captain PARKER. I was speaking in general terms, Senator. That difference would exist. I used the general term that the pay, transportation, and subsistence of the one force would be the same as the other. Doubtless the pay would vary a few dollars, because in the past the pay has not been exactly the same. In the same way the subsistence would vary slightly.

What I was trying to point out in connection with the Senator's remark about the increased cost of the man in the Naval Reserve compared with the National Guard is that there were two items that made that up. One was the armories; the other was the ships. Now, the cost per man of the Navy is greater than the cost per man of the Army, due to the element of ships; and when you charge us with the ships it does not create a fair comparison with the cost per man of the National Guard. The cost per man for training a naval reservist is approximately the same as the cost per man of training a national guardsman, outside of that element of ships and armories.

Now, in the armory they can take the National Guard out and put them over the country, and they do not pay for the country except the damage that is caused. They can take them to Camp Devens, and you do not charge up the original cost of Camp Devens and there is very little maintenance for that tour of duty of two weeks. But we have to have the ships kept in commission and always have to accept that difference. It is going to cost more to maintain a naval reservist than a national guardsman, the same as it costs more for a man in the Navy than for a man in the Army.

Senator NEWBERRY. I do not wish to interrupt you except to say that heretofore, ever since there has been a Naval Militia, the Navy Department has absorbed that cost. They furnish the ships and put them in such condition as necessary and take the Reserve Force through their two weeks' training without loading the cost of that on the Naval Reserve.

Captain PARKER. Exactly.

Senator NEWBERRY. They have done it in exactly the same way. The Army Department furnishes camp and equipment and certain instructions without particular charge for it. It is a part of the duty of the Army Department to train the National Guard, take them to Camp Devens or some other camp for maneuvers, just as

The Navy has heretofore provided ships to give a two weeks' cruise without charging it to the Naval Reserve. It always heretofore has

been done by the Navy as part of its work to train men to go into the Navy. Now, if it is all going to be loaded onto the Naval Reserve Force, I simply bring the facts to your attention, because it is going to make our job an exceedingly difficult one; that is all.

Captain PARKER. Well, Senator, I was trying to help you in that method of argument and justification. Of course, the reason for putting it in this item and the reason for loading it on the Naval Reserve—at least, one reason for it is that the bill as it stands at the present time, as passed by the House, has so cut down the ability of the Navy to provide for us that they can not provide for us unless additional vessels are added. Is not that practically the situation?

Assistant Secretary ROOSEVELT. Absolutely.

As a matter of fact, however, in so far as the country is concerned it does not make any difference whether you carry the \$358,000 we have got under engineering in engineering or under this item. It costs the country exactly the same. Certainly, as far as good bookkeeping goes, it would be better to carry it in a separate item, because then the House and the Senate would know exactly where the moneys concerned were going.

At this time the Navy finds itself confronted with the fact that it has not physically the vessels which it can put to this service under the appropriations as they stand now.

Senator NEWBERRY. They would not have it unless they thought it was an absolutely necessary thing for the Navy to have this Reserve Force ready at an emergency.

Assistant Secretary ROOSEVELT. Yes.

Senator NEWBERRY. If that is one of the things the Navy ought to do maybe it is more important than some of the other things.

Assistant Secretary ROOSEVELT. It is a question of assignment—

Senator NEWBERRY (interposing). A question of administration. You are the ones to decide whether these men ought to be trained or not. If they ought to be trained, you have before carried the cost. Add the \$3,000,000 to the \$2,000,000 and you have the cost almost to a cent what the Army has, and the Navy would have done what it has done up to this time, provide the ships.

Now if we are going into a question of bookkeeping, I agree we can make it show it costs the country a great deal to train Naval Reservists or make it show that it does not cost any more than it costs the Army. It is a question of the way you are putting up figures.

Assistant Secretary ROOSEVELT. It does not cost a bit more than it costs the Army. The proposition is this. In so far as the Navy Department is concerned the Navy Department holds no budget grouping the items either way. The Navy Department simply has the money to make it possible for it to train the Naval Reserve. As far as we are concerned if you consider it more advisable to put the figures back in the other items where they were originally and raise those other items accordingly it is all the same to the Navy Department. All we want to do is to get the Naval Reserves trained.

Senator HALE. You would say, Mr. Secretary, that it would be absolutely impossible for you to furnish ships from the Navy to take care of the Naval Reserve under the provisions of the House bill?

Assistant Secretary ROOSEVELT. It will be absolutely impossible for us to furnish the Eagle boats and subchasers.

Senator HALE. I mean under the provisions of this bill, with the amendment you have asked for, regardless of this one item?

Assistant Secretary ROOSEVELT. I do not think I quite follow that, Senator.

Senator HALE. I said it would be absolutely impossible for you to furnish ships under the provisions, not of the House bill, but of the Senate bill with the amendment which you have already suggested to this bill, regardless of this particular item?

Assistant Secretary ROOSEVELT. Yes; it would be impossible for us to furnish the Eagle boats and the subchasers.

Senator HALE. Could you furnish any ships?

Assistant Secretary ROOSEVELT. Yes. For example, we are furnishing some now. On this list there are some ships that are already being furnished and are being carried.

Senator HALE. So that if we had to use those boats instead of the Eagle boats and subchasers you could furnish those now?

Assistant Secretary ROOSEVELT. No; because it is possible to train a part of them in those boats. Now, the Navy could do another thing—

Senator HALE. It might be only a part, but that could be used to make up the amount that is needed?

Assistant Secretary ROOSEVELT. No; because that is already taken into consideration in this estimate. All of those are taken into consideration. What we have done in this estimate here is simply to find out where necessary; but I have not looked at it from the standpoint that Senator Newberry suggests. I have taken the amount in here from engineering and put it in a separate item, here. That is already in our estimates. But there are certain other items that were not submitted to you, and it is not balanced if this plan is to be placed in effect.

Senator HALE. What I want to know is whether you have not the ships in the Navy under the plan you did have for keeping reserves, that you could assign to the reserves?

Assistant Secretary ROOSEVELT. There are some ships that are provided for that are assigned to the reserves. Those stay absolutely the same. We did not change the dotting of one "i." We will explain—

Senator HALE. Then you will have these 59 besides the ships you have, for the reserves?

Assistant Secretary ROOSEVELT. No; the 57 includes all the ships in the reserves.

Senator HALE. I mean, take a ship like the *Illinois*.

Assistant Secretary ROOSEVELT. That ship was already in our plan.

Senator HALE. The 59 are in addition?

Assistant Secretary ROOSEVELT. No; the *Illinois*, etc., are included in the 57.

Senator HALE. Are those others miscellaneous ships?

Assistant Secretary ROOSEVELT. Those 16 are miscellaneous.

Captain PARKER. For instance we have three Eagle boats now. We lose them the 1st of July, but we have them now. These Eagle boats and subchasers are the ones being now used, that are going to be taken away.

Assistant Secretary ROOSEVELT. You see, it is a question of the importance of the object.

Senator NEWBERRY. And there are more
is that it?

Assistant Secretary ROOSEVELT. Just the important thing is to get the treaty Navy n

Senator NEWBERRY. I want to ask just a few questions. If the committee decided that the appropriation for this cruise, and for the other two, would be impossible to give them the cruises at all?

Assistant Secretary ROOSEVELT. No; would be impossible to give them the credit they believe would do the best service. It would be out of them the cruise. But we would send them to the Navy, and there would be the eight ships which would still be functioning.

Senator NEWBERRY. Do you think it we have done heretofore, and allow them to ships that are in commission, and battle

Assistant Secretary ROOSEVELT. I do not
to arrange their schedules so. However
tain Parker's province, and I think I w
on that.

Captain PARKER. We have found by p of the fleet is so complete in all the N for the fleet to be used for training pu ever been able to do would be to assign the summer, and to assign one or two v on the coast for training purposes. Th general thing, for training. The num limited to what can be taken in that one limited to the capacity of the vessels. T men on a ship in addition to their regul

Senator POINDEXTER. In time of war t

Captain PARKER. But the accommodation of war to what they are in time appropriation for pay, transportation, and make no provision for vessels, we pay for perhaps half the number of men that pay, transportation, and subsistence is of it would have been wasted, because the men to make the cruise. If you estimated that they could cut down the number we would have the necessary facilities for a number of men.

But I hope you will not cut down the Cavalry. I got to consider the separate arms of the Army. For instance, it costs the Government more for a Cavalry regiment as it does for an Infantry regiment. It costs probably more than an Infantry regiment.

Artillery regiments, because they are so numerous, in which it is necessary and proper to have

charge up for our equipment as you do for the horses and guns, is going to be more. But if you are going to have a naval reserve, which you must have, because your Navy is not going to be big enough to man your ships during the first three months of war, you have got to have something to bring out the personnel, if it is in the while having, and it is necessary to pay the cost.

Senator NEWBERRY. Suppose you left out the armory rents?

Captain PARKER. If you leave out armory rentals it simply means you have no meeting place. You might as well leave out a drill place. In order of importance would be, first, the cruises; second, the armories, and third, the drill pay. It is possible for the men to drill without pay, all over the country; but it is not possible for them to drill, even with pay, if they have no place to meet and drill, or any place to keep their clothes.

Senator NEWBERRY. It seems to me unjust to ask the men in the naval reserve to drill without pay when the men that occupy practically the same position in the Army are paid. There is a good deal of jealousy between them because one is getting paid and the other not; and the officers—I do not know, but I think the officers—are making the men reason to hope that they are going to get pay, if they only hang on and keep going; that the officers are striving for pay. If the man thought that that had been abandoned, that other things were more necessary, I wonder whether they would feel that they were justified in keeping up the drilling and training for naval service without compensation of any kind when the men in the land forces are being compensated; of course in a very small way, but at any rate enough to keep up their interest in the drill.

Captain PARKER. It is unjust, Senator; but the point I am trying to make was that outside of the militia States, unless you have an armory and drill pay, you can not have drills.

Senator NEWBERRY. Will you put down the amounts in the order of their importance?

Captain PARKER. My first in order of importance is cruises.

Senator NEWBERRY. How much is that?

Captain PARKER. That is, roughly speaking, \$3,000,000. Then armories is \$500,000. Then drill pay, roughly speaking, \$2,000,000, making a total of five and a half million dollars.

Assistant Secretary ROOSEVELT. I just want to correct that in one respect. The additional moneys required over what has been submitted to you in order to take care of the summer cruise will be about \$2,700,000.

Senator HALE. What proportion of these 57 vessels which are not in care of in the bill are new vessels?

Assistant Secretary ROOSEVELT. Forty-nine. You can not speak of units, because 8 units are taken care of in the department's plans.

Senator HALE. The larger ones are taken care of?

Assistant Secretary ROOSEVELT. The larger ones—for instance, the *colts*—the larger ones are taken care of in our estimates, and are the eight we are talking about, whereas the smaller ones, which are numerically to a larger number—

Senator HALE. But, for instance, in this you are providing for fuel, is not that taken care of in this bill in regard to the larger vessels?

Senator NEWBERRY. And there are more important things to do: is that it?

Assistant Secretary ROOSEVELT. Just exactly that. The most important thing is to get the treaty Navy manned.

Senator NEWBERRY. I want to ask just one question, to get this clear. If the committee decided that they would recommend an appropriation for this cruise, and for the training, and no more, it would be impossible to give them the cruise or any training on ships, at all?

Assistant Secretary ROOSEVELT. No; not necessarily that. It would be impossible to give them the cruise in such manner as they believe would do the best service. It would be impossible to give all of them the cruise. But we would send a few on regular ships of the Navy, and there would be the eight ships that I have enumerated which would still be functioning.

Senator NEWBERRY. Do you think it would be possible to do as you have done heretofore, and allow them to train in rotation on these ships that are in commission, and battleships in commission?

Assistant Secretary ROOSEVELT. I do not think it would be possible to arrange their schedules so. However, that comes largely in Captain Parker's province, and I think I would like to have him speak on that.

Captain PARKER. We have found by past experience that the work of the fleet is so complete in all the Navy details that it is difficult for the fleet to be used for training purposes. The best they have ever been able to do would be to assign one period of two weeks in the summer, and to assign one or two vessels to cruise up and down on the coast for training purposes. The fleet is not available, as a general thing, for training. The number of men that can go is limited to what can be taken in that one period that is assigned, and limited to the capacity of the vessels. They can not take very many men on a ship in addition to their regular crew.

Senator POINDEXTER. In time of war they take a great many more.

Captain PARKER. But the accommodations are very different in time of war to what they are in time of peace. If you made the appropriation for pay, transportation, and subsistence for a cruise, and make no provision for vessels, we probably could make a cruise for perhaps half the number of men that you had provided for, so far as pay, transportation, and subsistence is concerned, and the other half of it would have been wasted, because there was no opportunity for the men to make the cruise. If you were going to make it and estimated that they could cut down the number of men that could go, we would have the necessary facilities to give training to a certain number of men.

But I hope you will not cut down those ships, because you have got to consider the separate arms of the service in their own relations. For instance, it costs the Government three times as much for a Cavalry regiment as it does for an Infantry regiment, because of the horses. It costs probably more than that for an Artillery regiment, more than an Infantry regiment. Yet you have Cavalry and Artillery regiments, because they are separate arms of the service which it is necessary and proper to have. Now, we admit that if

UNITED STATES NAVAL RESERVE FORCE.

Eagles (25) :

No. 9, fifth naval district.
 No. 12, eleventh naval district.
 No. 13, third naval district.
 No. 15, third naval district.
 No. 19, first naval district.
 No. 26, third naval district.
 No. 27, third naval district.
 No. 29, first naval district.
 No. 34, eleventh naval district.
 No. 35, twelfth naval district.
 No. 36, eighth naval district.
 No. 38, thirteenth naval district.
 No. 39, seventh naval district.
 No. 42, first naval district.
 No. 44, third naval district.
 No. 47, twelfth naval district.
 No. 48, third naval district.
 No. 51, third naval district.
 No. 52, fourth naval district.
 No. 54, third naval district.
 No. 55, third naval district.
 No. 56, navy yard, Washington, D. C.

Eagles—Continued.

No. 57, thirteenth naval district.
 No. 58, fourteenth naval district.
 No. 59, third naval district.

Submarine chasers (17) :

No. 63, ninth naval district.
 No. 64, ninth naval district.
 No. 69, seventh naval district.
 No. 103, third naval district.
 No. 104, seventh naval district.
 No. 143, third naval district.
 No. 191, eighth naval district.
 No. 210, Washington, D. C.
 No. 224, third naval district.
 No. 271, third naval district.
 No. 330, ninth naval district.
 No. 412, ninth naval district.
 No. 419, ninth naval district.
 No. 431, ninth naval district (ordered to third naval district).
 No. 432, ninth naval district.
 No. 433, ninth naval district (ordered to third naval district).
 No. 437, third naval district.

NOTE.—One of the subchasers in seventh naval district to go out of commission.

olverine,¹ fourth naval district.
 eyenne,¹ fifth naval district.
 onmodore, ninth naval district.
 opher,¹ ninth naval district.
 awk,¹ ninth naval district.
 ilmette,¹ ninth naval district.
 anric,¹ ninth naval district.

Dubuque, ninth naval district (to proceed to Detroit).
 Paducah, ninth naval district (to proceed to Duluth).
 Wheeling, eighth naval district.
 Wilmington (replaced by Helena), ninth naval district.
 Essex,¹ ninth naval district.

NAVAL MILITIA.

linois,¹ third naval district.
 riardcliff, third naval district.

Sturgeon Bay, third naval district (to be assigned).

The following supplemental figures for the training of officers and men of the Naval Reserve Force are based upon the following premises:

(a) The retention in commission of 57 ships listed herewith, mostly Eagle boats and subchasers, of which 57 ships 8 were included in the operating-force plan upon which the Navy Department estimate for 86,000 men was made.

(b) The retention on active duty of 25 officers in connection with the training of these reservists.

(c) The retention on active duty of 600 enlisted men in connection with these ships and the training of reservists.

(d) Retainer pay for 3,000 officers and 10,000 men of the Naval Reserve Force; and training cruises of 15 days for these during the fiscal year on the ships assigned to the training of naval reservists.

(e) The provision of additional armories in naval districts for the training of these reservists, as explained in these hearings.

3. Most of the money for carrying out the above premises is not now in the bill. (See p. 6 of the report of the House Committee on Appropriations of April 1922.) The increases in money necessary for carrying out these premises are applicable to the department's figures recommended to the Senate committee in alteration of the bill after it passed the House of Representatives. Even on this basis all the figures for pay of the Navy must be revised to provide for acting in effect the new pay schedule when it shall become law. The figures added, therefore, are in the nature of a preliminary estimate of additional moneys

¹ Included in estimates of April 25, 1922. The other 49 ships are not in the operating force plan on which the department's estimates for 86,000 men are based.

Captain PARKER. In regard to the larger, and that is why that cost you \$500,000.

Senator HALE. You have shipkeepers to take care of the vessels! The bill provided for manning them, did it not, just as it mans the other vessels?

Admiral COONTZ. I would like to tell you about the cruises. Our bill only provides for 327 ships in the Navy for 1923. Eighty-four of those are submarines and 103 are destroyers. On the Atlantic coast we will have just two battleships this summer—the *Arkansas* and the *Wyoming*. There are three others that are taking the midshipmen out. We have to send some vessels to Brazil. We have only 30 destroyers on this coast. Our ships are scattered all over the world. We have now to keep destroyers in the Black Sea. You talk about sending these reserves on board ships. There are none here.

Senator HALE. Then none of these 59 are in this list of 357 ships?

Assistant Secretary ROOSEVELT. Yes; eight of them are.

Admiral COONTZ. These subchasers and Eagle boats are not in the bill.

Senator HALE. But the big vessels?

Admiral COONTZ. The *Illinois* and the——

Senator HALE. They are the ones that it would cost something to keep. Those were all appropriated for in the bill?

Admiral COONTZ. Those eight were estimated for. The money for keeping them up is money we have subtracted here as already submitted to you.

Senator HALE. Then the fuel would have nothing to do with the fuel for the *Illinois*?

Assistant Secretary ROOSEVELT. Not the fuel; but we provided herein for taking the *Illinois* from the other appropriation and lumping it under this head.

Senator HALE. You cut down fuel in the other appropriation?

Assistant Secretary ROOSEVELT. Yes; we cut down the other appropriation correspondingly.

Senator HALE. In every case?

Assistant Secretary ROOSEVELT. Yes; in every case where it is duplicated. It is provided for. That is already covered and carefully worked out here. That is why I explained that certain if we segregated the proposition, would be subtracted from one item to be paid in the segregated item.

Senator HALE. Have you a table showing what you cut out of the bill?

Assistant Secretary ROOSEVELT. Yes.

Senator HALE. Will you have that put in the record?

Assistant Secretary ROOSEVELT. It is right here. I am going to have it put in proper form.

[Memorandum from Chief of Naval Operations.]

NAVY DEPARTMENT.
Washington, June 2, 1922.

1. The following vessels will be assigned to training naval reservists and Naval Militia during fiscal year 1923 under this plan. Otherwise, most of these ships will not be in commission after July 1, 1922:

se four cruises; and yet we had only trained 100 men. The number men you can take out on an Eagle boat is less than 50.

Senator POINDEXTER. How many can you take on these larger s?

Captain PARKER. I am not familiar with the larger boats, but on Eagle boat you have a crew of 56 men, and your 10 ship keepers, it leaves you room for less than 50 men that you can take for ining.

Senator POINDEXTER. Your eight boats are in the complement of Navy. Why is it not feasible to utilize those boats—that fleet of ht boats—at different seasons of the year all along the coast, going m one point to another?

Assistant Secretary ROOSEVELT. They are assigned to the naval ervice, and a great percentage of them are on the Great Lakes, and re is the complication of the treaty, as to taking them in and out he Great Lakes, and things of that sort.

Senator POINDEXTER. They are not utilized by the naval reserve on Great Lakes the year around, are they?

Assistant Secretary ROOSEVELT. Training the naval reserve up re; yes sir. I tried to do exactly that last summer, when the stion came up, of getting certain ships for training purposes, d by the naval reserve on the Great Lakes, and the first thing I into, of course, was the treaty with Canada. Then I tried to if I could not switch the ships around and make them do double y, and get one at Buffalo and one at Erie, and I was not able lo it.

Senator POINDEXTER. The treaty provision is against having an eased number of vessels on the Lakes. It would not interfere h decreasing the number.

Assistant Secretary ROOSEVELT. No; it would not interfere with de- ising the number; but I am not sure, but you would find if we took out, you would have considerable trouble getting it back again.

Senator NEWBERRY. They would never raise any objection to that, training. In fact, the treaty only provides for certain ships, and y have violated that treaty over and over again, from the day it ; made.

Senator HALE. Captain Parker, do you think that the States would illing to do anything?

Captain PARKER. I think quite a number of the States will be will- to reestablish the Naval Militia if Congress will readjust the law elation to the Naval Militia. We have had an intention of re- blishing the Naval Militia introduced in the District, but we have een able to get the local powers to be at all interested in it, be- se, as the law stands at the present time, the Naval Militia goes of existence on the 30th of next June. Unless you pass that ndment which Senator Newberry put in continuing the life of Naval Militia beyond that date, it is wiped off the map.

Senator PAGE. You say next June?

Captain PARKER. Yes, sir; on the 30th day of June.

Senator PAGE. I understood you to say next June.

Captain PARKER. This June, sir. I had forgotten that we v . . . now.

When the Naval Militia was tri
Naval Militia laws were re

which must be appropriated over and above the department's previous estimate except where specifically or otherwise stated, in order to accomplish the program detailed above.

Page and line of H. R. 11228.	Item.	Cost.	Duplication of money based on figures already submitted.	Increase based on department's previous recommendation.	Figure previously submitted to which increase is applicable.	Total which should be appropriated to include this plan.
5-8	Pay, miscellaneous.....	\$67,680.00		\$67,680.00	\$3,200,000.00	\$3,267,680.00
16-15	Naval Reserve Force.....	500,000.00	\$200,000.00	300,000.00	200,000.00	500,000.00
25-2	Engineering.....	358,820.00	358,820.00		16,436,288.76	16.76
27-20	Construction and repair of vessels.....	136,000.00	26,000.00	130,000.00	18,441,000.00	18,571,000.00
32-23	Pay of the Navy: Retainer pay, officers and men.....	12,523,269.60		2,523,269.60		
	25 officers on active duty.....	103,853.00		103,853.00		
	600 men on active duty.....	608,572.80		608,572.80		
	15 days active training.....	715,926.00		715,926.00	5,640,233.00	6,356,152.00
37-15	Provisions, Navy: 600 men on active duty.....	219,000.00		219,000.00		
	15 days active training.....	75,000.00		75,000.00	19,724,928.00	20,014,928.00
38-23	Maintenance, supplies and accounts.....	27,590.00	4,620.00	22,940.00	7,654,260.00	7,677,200.00
39-24	Fuel and transportation.....	625,150.00	169,662.00	455,488.00	19,404,662.00	20,030,300.00
	Total.....	15,980,831.40		15,221,729.40		

¹ If the item \$2,523,269.60 for retainer pay for officers and men be deducted, the totals above would then become \$3,457,561.80 and \$2,698,459.40, respectively.

Senator POINDEXTER. I would like to ask Captain Parker a question. You are familiar with the practical features of training the naval reserve. How many of these boats would be detailed to the district—what district is that?

Captain PARKER. The first district. Three Eagle boats.

Senator POINDEXTER. Three Eagle boats. You want them kept in commission the year around?

Captain PARKER. Yes.

Senator POINDEXTER. How would it be possible to keep those boats employed the year around in training these men? Can you get a sufficient complement of naval reservists to get their vacations and go aboard these boats for a cruise so as to keep the boats occupied the entire year?

Captain PARKER. To answer that absolutely, all three boats will not be occupied all the time.

Senator POINDEXTER. What percentage of the time will they be occupied, approximately?

Captain PARKER. I should say in the middle of the winter we would only have one of the vessels out at a time. In the spring and fall we would probably have two, and in the summer time we would have three out, cruising. Our usual method of cruising would be two weeks afloat, and then a week ashore, getting another crew to go out.

Senator HALE. And in the meantime the ship keepers would take care of the ship?

Captain PARKER. Would take care of her. Last summer we ran four squadrons with three Eagle boats in each squadron. They only took out 100 men. There were three summer months used there in

(Thereupon, at 1 o'clock p. m., the subcommittee went into executive session, at the conclusion of which the subcommittee adjourned.)

(The following matter was later submitted and ordered to be incorporated in the record at this point:)

DETAILS OF ESTIMATES FOR TRAINING NAVAL RESERVE FORCE.

ay, miscellaneous.—Three thousand officers, 282 miles, at 8 cents per mile, 680.

ngineering.—Specific provision for funds in the appropriation "Engineering, 3," for this purpose may be made without involving any increase in the total for in the detailed estimates already before the committee, inasmuch as figuring ship costs the total submitted included provision for these vessels, \$16,795,048.76.

onstruction and repair of vessels.—Referring to memorandum to chief of naval operations, May 27, 1922, containing list of vessels to be assigned to training naval reservists and Naval Militia during fiscal year 1923, it is estimated that the expenditures necessary on account of these vessels under appropriation "Construction and repair, 1923," in addition to the estimates previously submitted to Congress, will be as follows:

Eagles, at \$3,600 each.....	\$90, 000
submarine chasers, at \$1,000 each.....	16, 000
gunboats, at \$4,800 each.....	24, 000

Total additional amount to be provided under Bureau of Construction and Repair.....	130, 000
-------------------------------------------------------------------------------------	----------

It will be noted that the above statement mentions 5 gunboats in lieu of 12 gunboats mentioned in Chief of Naval Operations' list, due to the fact that these vessels had been covered in previous estimates.

PAY OF THE NAVY.

Seamen pay, officers and men:

3,000 officers.....	\$1, 223, 260. 60
10,000 men.....	1, 300, 000. 00

Total.....	2, 523, 260. 60
------------	-----------------

Twenty-five officers and men on active duty.—The following information has been furnished by the Bureau of Navigation as to the numbers and ranks of officers proposed to be utilized in connection with training of the Naval Reserve Force during the fiscal year 1923:

Captains.....	2
Commanders.....	9
Lieutenant commanders.....	2
Lieutenants.....	9
Lieutenants (junior grade).....	3

Total.....	25
------------	----

Based upon the available records as to the prior service of the above mentioned officers the following amounts would be required for their pay, subsistence, and quarters while on active duty:

.....	\$68, 090
Subsistence.....	12, 483
Quarters.....	23, 280

Total.....	103, 853
------------	----------

Six hundred men on active duty for Naval Reserve training vessels.

Grade.	Number.	Annual base pay.	To
1.....	134	\$1,512.00	202
2.....	150	1,008.00	151
3.....	27	864.00	23
4.....	67	720.00	48
5.....	148	648.00	95
6.....	74	432.00	31
	600		553
Assume 10 per cent increase for longevity for prior enlisted service of four years.....			35
Total pay.....			608

Fifteen days' active training.—There are no available statistics as to numbers, ranks, ratings, or length of service of the officers and enlisted the Naval Reserve Force who are likely to perform training duty in the fiscal year 1923 in the event that funds are made available for such duty. It was, therefore, decided to use the same distribution of officers by rank as was used in preliminary estimates and to provide for the training of enlisted men in the same general proportion as they are distributed in the various ratings in the regular Navy.

Even were the statistics available as to the distribution in the different grades, it would still be impossible to determine what proportion of each grade or rating might train. The estimates provide for 15 days' training for officers and 10,000 men, but it may be that the actual numbers which can be trained will be somewhat more or less than these numbers. The amounts required are estimated as follows:

Training duty pay (15 days).

Officers:

Lieutenant commanders and above, 510, at \$137.50.....	\$70,125.00
Lieutenants, 975, at \$110.....	107,250.00
Lieutenants (junior grade), 757, at \$91.66.....	69,386.62
Ensigns, 758, at \$77.91.....	59,055.78
Total.....	305,817.40
Add travel pay (2 days).....	40,775.60
	\$346,593.00

Enlisted men:

10,000, at \$32.50.....	325,000.00
Add two-fifteenths for travel pay.....	43,333.00
	368,333.00
Total.....	715,000.00

Provisions, Navy:

600 men on active duty, $600 \times 365 \times \$1$	219,000.00
15 days' active training, 10,000 men, 15 days, at 50 cents per day.....	750,000.00
Maintenance, supplies and accounts: Mess-room and galley equipment, mess gear and supplies for vessels to be assigned to the training of Naval Reserve Force.....	2,000.00

Fuel and transportation.—The revised estimate for appropriation for fuel and transportation, 1923, submitted April 25, 1922, called for an appropriation of \$19,894,662.

This estimate included the following vessels, which are to be used for the training of Naval Reserves and Naval Militia:

FUEL CONSUMPTION.

	Coal.	Fuel oil.
	<i>Tons.</i>	<i>Barrels.</i>
	1,632.42	14,839.50
	1,204.02	
	1,405.26	
	1,542.42	
	1,542.42	
	723.64	
	7,495.61	
al.	15,545.79	14,839.50
ons of coal, at \$8.849 per ton		\$137,564.69
arrels of fuel oil, at \$2.163 per barrel		32,097.84
al.		169,662.53

is herewith a statement showing the quantity and value of fuel for all which are to be assigned to the training of Naval Reserves and Naval for the fiscal year 1923, including those vessels above mentioned :

NAVY DEPARTMENT APPROPRIATIONS

Ships assigned to training Naval

NEW ITI

	Equipage.		Supplies.		
	Safes, adding machines, typewrit- ers, etc.	Mess- room and galley equip- ment.	Supplies.	Mess gear.	
gle boats.....	\$1,250.00	\$2,500.00	\$4,000.00	.....
chasers.....	800.00	1,600.00	2,560.00	.....
on.....	300.00	600.00	660.00	\$300.00	1
.....	300.00	600.00	660.00	300.00	1
g.....	300.00	600.00	660.00	300.00	1
e.....	300.00	600.00	660.00	300.00	1
dore.....	150.00	300.00	330.00	150.00	
ff.....	150.00	300.00	330.00	150.00	
geon Bay.....	150.00	300.00	330.00	150.00	
Total.....	3,700.00	7,400.00	10,190.00	1,650.00	

PREVIOUSLY INCLUDED.

olverine.....	\$60.00	\$200.00	\$400.00	.....
eyenne.....	60.00	200.00	400.00	.....
pher.....	60.00	200.00	400.00	.....
k.....	60.00	200.00	400.00	.....
ette.....	60.00	200.00	400.00	.....
.....	60.00	200.00	400.00	.....
.....	60.00	200.00	400.00	
Total.....	420.00	1,400.00	2,800.00	4
Grand total.....	4,120.00	8,800.00	12,990.00	\$1,650.00	



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